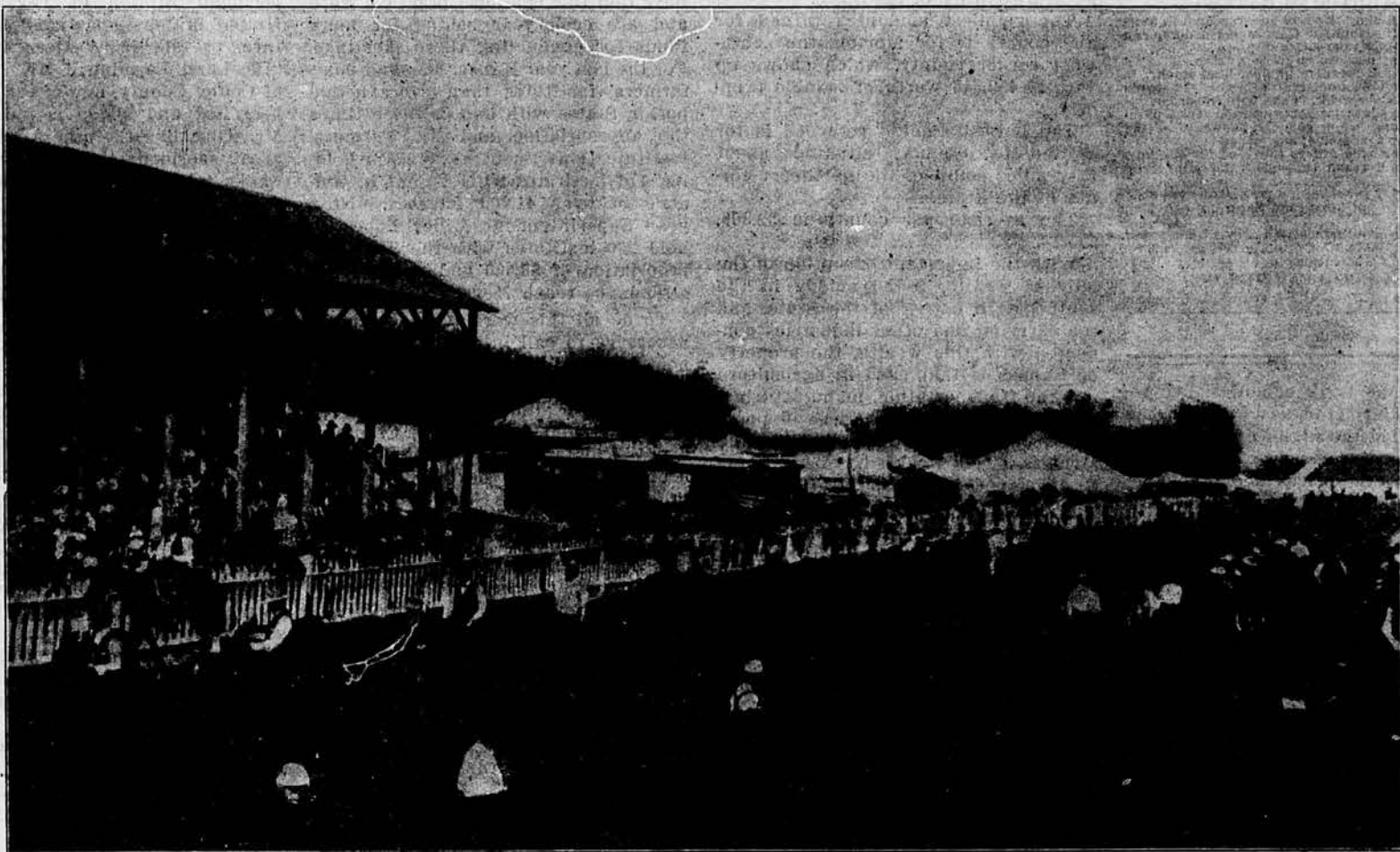


KANSAS FARMER

Volume XLVI. Number 37

TOPEKA, KANSAS; SEPTEMBER 10, 1908

Established 1863. \$1 a Year



PARADE OF PRIZE-WINNERS AT THE STATE FAIR, 1907

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The Kansas bank commissioner reports that the volume of deposits has again reached the high-water mark attained before the panic. This season's crops and prices should enable the banks to break the record.

In some parts of Kansas it is the almost universal practise to follow each day's plowing with the harrow before leaving the field. It is profitable. Lumps that would become clods are easily reduced. Cavities which would tend to increase evaporation are filled. The soil is so worked in with vegetation that is turned under as to hasten its decomposition. The work of the soil enlivening bacteria is favored.

The "fair season" is now on. The great West is presenting State Expositions that excell in magnitude and attendance any ever held. Iowa led week before last with a record breaker. Nebraska held attention last week. Kansas comes forward this week with two big fairs, one at Topeka, the other at Wichita, and will hold yet another next week at Hutchinson. If Kansas could combine these three and their influence this State could present an exposition that would be hard to match.

It is suggested by Bank Commissioner Royce that the money in Kansas banks is sufficient to meet all demands for loans in this State, and that by the establishment of a central bureau of information, say, at the Bank Commissioner's office, the excess of demands for loans in some quarters and the excess of demand for money at others may be equalized. This would keep within the State all money paid for interest and would prevent such inconvenience as was suffered last winter when Kansas money deposited by bankers in Eastern institutions could not be had on call.

A new book by Secretary F. D. Curn is announced to appear soon from the presses of the Orange Judd Company, New York. This is not a new edition of "Curn's Swine Husbandry" which has been standard for nearly a third of a century and which will still have a large place. The new book will be entitled "Swine

in America." It will deal with the subject of swine in its many phases, from a practical standpoint, under conditions as they now exist. It will be handsomely illustrated, a companion volume to the "Book of Alfalfa" and the handsomest book yet devoted to any one class of livestock.

The fruit crop of Kansas according to returns to Secretary Wellhouse of the State Horticultural Society reported September 8, averages for the State as follows: Apples, 41 per cent; pears, 37 per cent; peaches, 46 per cent; and grapes, 54 per cent of a full crop. While there is considerable variation in the out-turn in the several sections of the State, there is much fruit in every Congressional district.

KANSAS ASSESSMENT FOR 1908.

The total assessed valuation of property in Kansas on March 1, 1908, is \$2,488,401,075.89. This does not include some \$2,000,000 worth of property of the Western Union Telegraph Company which the Tax Commission could not certify on account of injunction proceedings not yet terminated.

The map on this page shows the distribution of this wealth among the several counties of the State.

The smallest amount returned for any county is for Morton, the southwest corner county, which shows up with \$1,459,846 worth of taxable property.

The largest amount returned is for Wyandotte County, situated about fifty miles south of the northeast corner of the State.

The average per county is \$2,369,905.78.

With the important exception of the mineral wealth, found chiefly in the southeastern corner of the State, and the carrying and other industries connected with this wealth, the property of Kansas is that used in agriculture and the transportation, manufacturing, and commercial enterprises dependent upon agriculture and serving the farmers. This wealth has been largely developed in Kansas.

A little more than one hundred years ago—in 1803—the United States bought from France not only Kansas but all of the country lying between the Mississippi River on the east and Texas and the main range of the Rocky Mountains on the west for \$15,000,000, a little more than one-one-hundred-and-sixty-sixth of the present assessed valuation of Kansas. For almost fifty years this "grassy quadrangle" lay almost unused save by the roving Indians and the vast herds of buffaloes.

A little more than half a century has sufficed to make farms and farm homes of what Lieutenant Pike, in reporting his explorations of 1806, called the "buffalo plains."

For ages uncounted these plains had lain almost unoccupied because no man wanted them. The demand for land and its products for the sustenance of man has created most of these values. The demand for these products increases in geometrical ratio

with the peopling of the earth. Such an unused fertile domain as was acquired one hundred years ago from France is not now open to conquest. The crowding process is beginning. Happy shall we be if those who till the soil shall so recognize its appreciating value that they will continue to own it instead of letting it go into the hands of syndicates or other large owners.

The creation of 2½ billions of reserve wealth in half a century means an average of 50 millions a year. There are no former assessments at actual value with which to compare the figures of this year, but it is safe to assume that the present rate of increase of this reserve over and above the living expenses of the people is 50 per cent above the average or at the rate of 75 millions per year.

"Let the good work go on."

FARMERS' INSTITUTE STAFF IN KANSAS.

Four years ago the Kansas State Agricultural College aided in holding fifty-four farmers' institutes and there were but few permanent, legal institute organizations. The regents believe that this is a most practical work and are each year asking for more funds for conducting these meetings. For the last year Kansas has had more farmers' institutes than several neighboring States with two or three times the appropriation and the Farmers' Institute Department assisted in holding 176 institutes with a total attendance of over 41,000 farmers. Next year Superintendent Miller hopes to hold 250 institutes with the State appropriation of \$6,000 and to have the attendance reach 75,000.

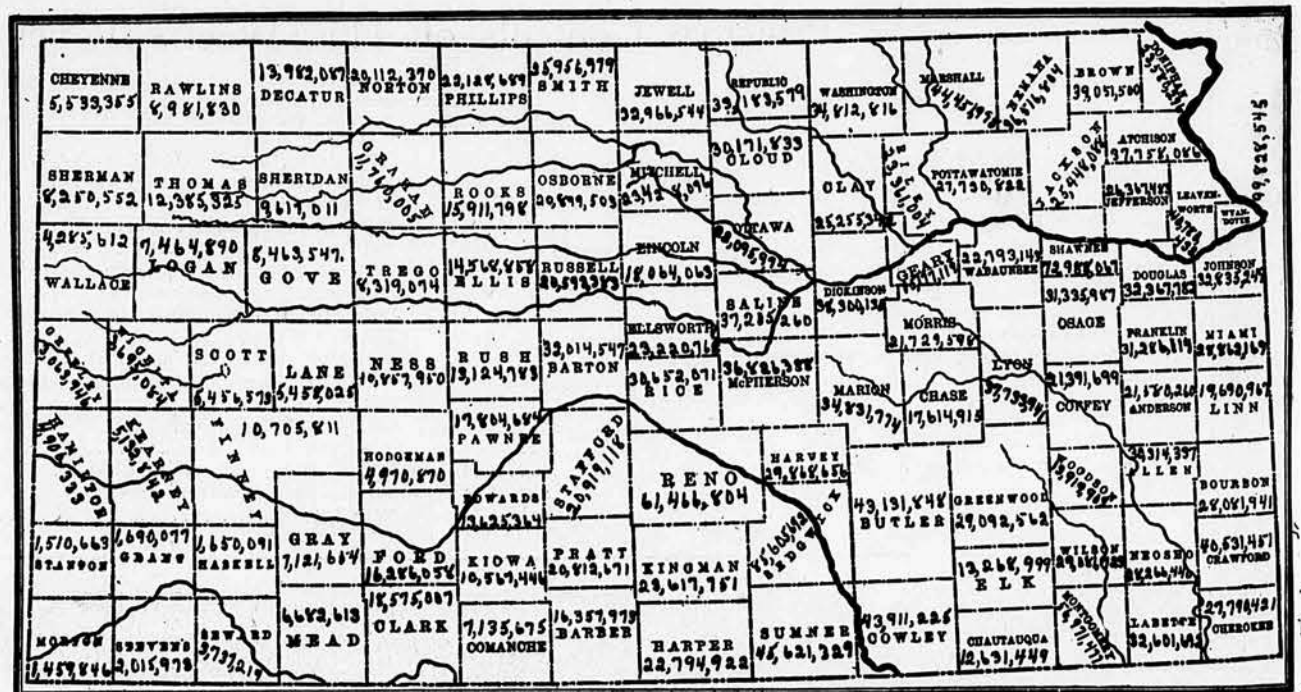
To do all this work it is absolutely necessary to call in the aid of prominent farmers and others in the State, not connected with the college. The regents have allowed an assistant for the department and Mr. P. E. Crabtree, a practical farmer and stockman, has been employed to devote his whole time to this work. Mr. Crabtree assisted the department last winter for six weeks in Eastern Kansas and pleased the farmers very much and his employment has brought many letters of approval from institute officers. He has lived on his own farm, raising pure-bred corn, Percheron horses, Poland-China hogs, and fine poultry. For several years he was editor of a stock paper in Denver and vice-president of the Colorado Poultry Association and was sent to Europe by that association to make certain poultry investigations. Mr. Crabtree owns two good Kansas farms and will bring to his new work excellent qualifications. His duties for the first year will be confined almost wholly to field work in Eastern Kansas.

In addition to a dozen college men who will give from two to eight weeks of service to this cause as heretofore, TenEyck, Wheeler, Kinzer, Kendall, Headlee, McCormick, Willard, Dickens, Schoenleber, Mrs. Van Zile, Miss

Dow, Miss Woodward, Miss Lindsay, and others including Superintendent Miller, the regents have approved the employment of outside men, men who have been successful in actual farming and stock raising. Superintendent Miller has secured the following well known Kansas men, some for only one week, others for two, three, and even four weeks, with one or two, who may be able to assist for six weeks. Mr. S. C. Hanna Howard, one of the most successful farmers and stockmen, who has probably the finest pastures in Kansas, to talk on "Farm Pastures;" Mr. J. G. Haney, Oswego, manager of the fine Deming Ranch, graduate of the Kansas Agricultural College, who will talk on "Drainage of Farm Lands;" Mr. H. W. Van Leeuwen, Ottawa, one of the most successful dairymen and an expert cheesemaker, formerly instructor in the dairy department of the college; Mr. R. V. Hicks, editor of Poultry Culture, Topeka, and one of the leading poultry authorities in the United States, to talk on "Farm Poultry;" Mr. A. H. Leidigh of Reno County, a graduate of the college and for several years in charge of the Dry Land Experiment Station in Texas for the United States Department of Agriculture, to talk in Western Kansas on "Dry-Land Farming;" Mr. E. D. King of Coffey County, one of the half dozen best hog and sheep men in Kansas. Mr. King, like the others, will make a great sacrifice to devote one or two weeks talking to farmers on "Care in Breeding Hogs" and "More Sheep for Kansas." Two other practical farmers are considering the matter of helping in the work and if their business will permit they will help a few weeks in January and February.

The regular fall "campaign" of county institutes will open October 19, and Supt. J. H. Miller, of the Farmers' Institute Department, Manhattan, Kans., is arranging for two circuits for the four weeks beginning September 21. His new assistant, Mr. P. E. Crabtree, will conduct the eastern circuit including Leocompton, Lone Star, Eudora, Ottawa, Waverly, and five or six meetings in Anderson, Miami, and Franklin Counties and then two in Shawnee County with several open dates for points in Eastern Kansas where meeting are desired. Another circuit for the same period will be offered to the farmers in Central and Southern Kansas along the lines of the Rock Island and Santa Fe roads. Requests for meetings should be made very quickly as all dates should be fixed by September 15 or earlier.

To ethnologists and others interested in the ancient races of the Santa Fe Southwest, the Navajos, Pueblos, and other Indians who will attend the National Irrigation Congress, Albuquerque, N. M., September 29 to October 10; their manners and customs; their manufactures of blankets, pottery, jewelry, etc.; their costumes;



their odd ceremonies; their horsemanship; their implements of domestic use; and relics of ancient warfare, will be especially interesting. Contrasted with these, the students of the several Indian schools of the Southwest will be present; object lessons of what modern education can do even for the Indian. To attract the tribal Indians to the Congress, many prizes have been offered.

Miscellany

Object Lessons of Irrigation.

The National Irrigation Congress and the International Exposition, Albuquerque, September 29 October 10, properly are joined in one big event. For the Exposition, with all the fruits of the soil, grown in the desert by the touch of water, is a practical lesson of irrigation. Really, the exposition will attract the attention of visitors from the Eastern States and from South Africa, Asia, and South Europe, more than the Congress will. For irrigation is centuries old, but its application in America is comparatively new, and visitors from remote States and foreign countries will want to be shown.

So the managers of the exposition are sparing no pains to make of it the biggest agricultural and live-stock show in the Mountain West, East of the San Joaquin Valley. They propose to give a practical lesson of the value of irrigation in the form of orchard and field crops, forage, cotton, and, even pure-bred live-stock, grown in the desert by the artificial application of water. These exhibits will include oranges, lemons, pomeloes, figs, dates, and olives from the irrigated valleys of Southern Arizona; and the more hardy orchard and field crops, cotton, beet, sugar, and live-stock from all over the so called desert West. These products, especially the orchard fruits, not only will be shown, but they will be in such abundance that visitors may eat thereof and judge of their excellence. Every valley and section of the Mountain West will be represented in these exhibits.

Studies for the Eighth Grade.

EDITOR KANSAS FARMER:—What studies constitute the eighth grade in the common school? Can higher studies be legally taught?

Shawnee County.

A READER.

The studies required for the eighth grade in the common school are found on pages 80 to 86 of the Course of Study for the common schools of Kansas for the year 1907.

The studies for the year 1907-08 were: Classics, grammar, arithmetic, geography, history, spelling, and writing. The general exercises such as calisthenics, music, drawing, current events, morals, and manners and also agriculture are also to be given some attention.

The plan of the Course of Study provides for the alternation by years of the subjects prescribed for the eighth and ninth grades. High school subjects can legally be taught in any of the common schools of the State, but, ordinarily, such subjects should not be undertaken without provision being made for more than one teacher.

Talks of a Billion People in the United States.

Leigh R. Freeman, managing editor of the Northwest Farm and Home, published at North Yakima, Wash., known in that section as the "father and mother of irrigation," takes an active interest in the forthcoming National Irrigation Congress, Albuquerque, N. M., September 29 to October 10. It was Mr. Freeman who went to the Boise Congress with the slogan, "We are coming Father Teddy for 300 million more!" That song is in his heart this year, and incidentally he has a boom for North Yakima to get the next meeting of the Congress. He also favors a resolution advocating

chairs of irrigation in Western Colleges, and it is likely that by his efforts the Washington State University will have one. With these schemes in mind, Mr. Freeman and a strong delegation are coming from Washington to the Albuquerque Congress. In a letter to the Board of Control, Mr. Freeman has this to say on the subject of more and larger appropriations for irrigation:

"Roosevelt is asking for a half million dollars for the Mississippi waterway, while Hobson asks for a half billion for the Navy. We say put these two half billions together, and give us a billion direct appropriation by Congress for National irrigation for every State in the Union, and we will show you one billion white men under the Stars and Stripes, and then we will need no navy to bluff Japan, or any other Nation or combination of Nations. Irrigation is the paramount issue before the American people, and will do more to build new homes than did the homestead law; in fact, more than all the other land laws combined."

Census Returns of Assessors.

F. D. COBURN, SECRETARY.

Census returns of assessors, forwarded by county clerks to the State Board of Agriculture, indicate that the growth in Kansas' population in

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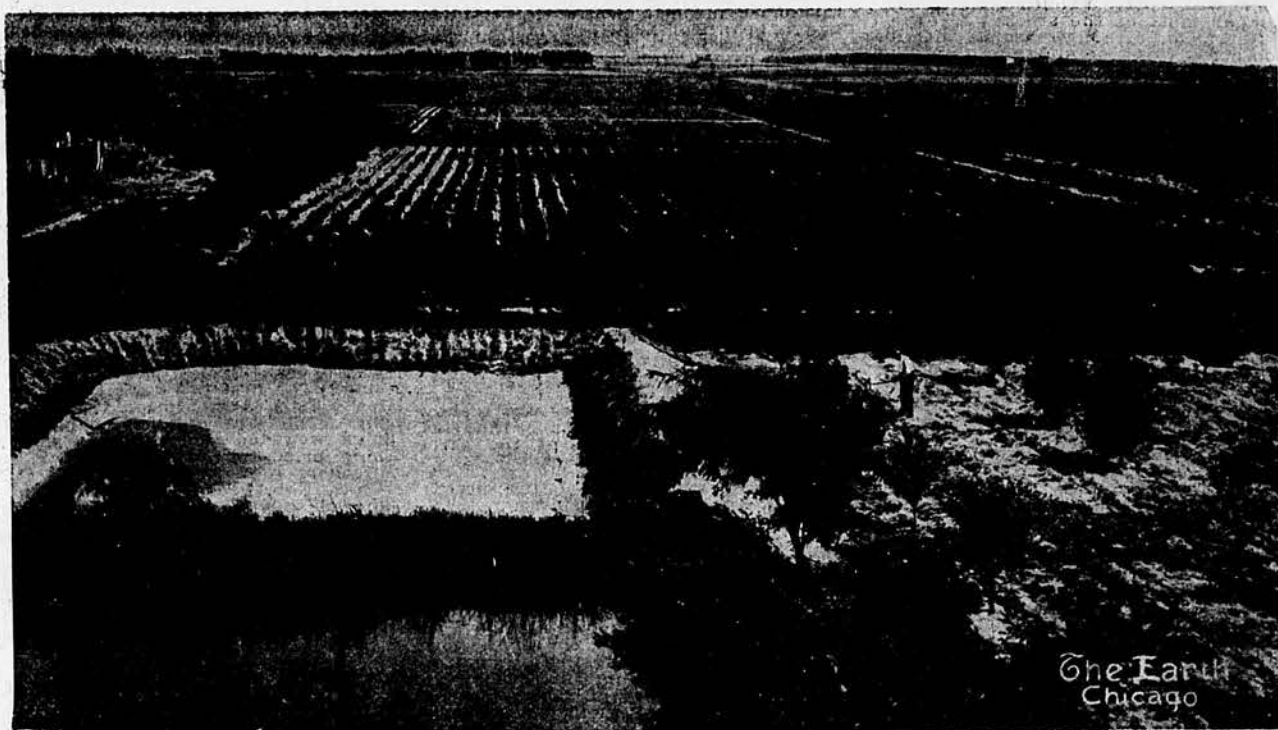
the year ending March 1 was mostly in the rural districts, instead of in the cities as was the case in 1907, when about two-thirds of the net increase of the State was reported in the cities and towns of 1,000 or more inhabitants.

This year the municipalities belonging to such list number 131, or one less than in 1907, and their net increase has been 788, or less than 12 per cent of the increase (6,639) for the entire State. Seventy municipalities show an aggregate gain of 19,005, and 60 a decrease of 18,217,

while Nickerson neither gained or lost.

Wichita reports the largest increase, 3,762, followed by Great Bend with a gain of 1,384, Caney 1,121, and Manhattan 1,042. Wamego shows the smallest increase—6. The Cowley County officials certify to a loss of 2,104 in Winfield, which is the largest decrease. As in 1906, there are 13 cities having 10,000 or more inhabitants each, Emporia having dropped below that figure since 1907, and the combined population of the thirteen represents a little over 19 per cent of

(Continued on page 962.)



Irrigation in the Southwest—Along the Santa Fe.

Nebraska State Fair

Again the Nebraska State Fair has proved itself to be one of the greatest State fairs of the West. With western agriculture advancing so fast it is necessary for a fair to take great strides each year to maintain a place among the leaders. Under the present management, however, the Nebraska Fair is more than holding its own. New buildings appear every year. This year the much needed cattle barn has been erected. This barn is built of brick and paved with cement and is provided with ample drainage. It was kept clean and sanitary. It is the finest of its kind that the writer has ever seen.

This year the exhibits of manufacturers covered over fifty acres and more than one hundred different factories displayed their goods. Every kind of machinery and implements used in agriculture was found among the exhibits. One of the finest and most extensive displays that the writer has ever seen at any State fair was that of the Dempster Mill Mfg. Co., of Beatrice, Neb. This exhibit covered several acres showing the Dempster windmills, seed drills, cultivators, etc. The Dempster people had on display an irrigation plant and also an automobile cultivator which might be found anywhere on the grounds.

The Western Electric Company had on exhibition everything needed in the construction of a country telephone plant.

The Marshall Oil Company had two fine exhibits, showing their line of disinfecting dips.

In the big tent of the International Harvester Company was displayed the entire line of the agricultural implements handled by these people. There were two especially interesting features in this tent. One was the demonstration of twine making and the other of the International cream separator. Here a cow was milked and the cream separated.

Among the other most attractive exhibits were the following: Reeves & Company, traction engines and thrashing machines; Superior Drill Company, the Wm. Galloway Co., manure spreaders, cream separators, etc.; Hart-Parr Co., gasoline and kerosene traction engines; DeLaval Cream Separator Co., and the Only Mfg. Co., hog waterer.

On Wednesday afternoon it is estimated that the crowd reached the 42,000 mark. Those of this vast crowd who spent the biggest part of the week on the crowded fair grounds at Lincoln will not soon forget the willing attention and accommodations given them at the Administration building by Secretary Mellor and his assistants.

The 1908 stock show at the Nebraska State fair, while not the largest in numbers, will go down in history as one of the best stock shows ever held in the State. Nearly all the classes were filled. Some of them very large. The new cattle barn is one of the best we ever saw, and the fair management is to be praised for securing such a barn with the new stock-judging pavilion which the management expect to have ready by next year, when the Nebraska State Fair grounds will be in good shape to handle its large exhibit of live stock.

The officers, heads of departments, and assistants are gentlemen and understand their work, not one word of complaint did we hear from any source. With perhaps one exception everything went off satisfactorily to every one. In keeping the people back from the animals while the judges were making the awards the management was at fault. At times the judges could hardly see two animals at a time which made it very hard for the judges to place the awards. With the proper arrangement for keeping the crowds back this could have been avoided.

This was mostly a Nebraska stock exhibit, as most of the stock was owned in Nebraska, although some of the good herds was from other States which helped to make the show more interesting.

In point of numbers the Shorthorns were more than any other breed of cattle, numbering 147 head with the exception of the aged bull class which was not very strong. The classes were well filled with high class animals, making a show equal to the State fairs farther East. The exhibitors that figure most in the prize list were T. K. Tomson & Sons, Dover, Kans.; A. C. Shallenberger, Alma, Neb.; Flynn Farm Co., Des Moines; Thomas Andrews, Cambridge, Neb.; Everett Hayes, Hiawatha, Kans.; and Geo. H. White, Emerson, Iowa.

Prof. H. R. Smith, Lincoln, Neb., tied the ribbons and we know of no one that could have done better work in picking out the good ones. Some of the classes were large and close but when the judge placed the winners the good ones had been placed where they belonged.

In the young herd and get of bull classes the first and second prizes could have been changed but they were very close.

The first prize aged cow, College Mary, is a grand animal, and ought to get close to the championship at the Royal this fall.

HEREFORDS.

The Hereford show was not large in number, about 80 head, but the quality was good. The strong fight was between Mousel Bros., Cambridge, Neb., and Cornish & Patten, Osborne, Mo., two well known breeders and show firms. G. G. Clements, Ord, Neb.; Aldrich Stock Farm, David City, Neb., and G.

Von Seggern, Wesner, Neb., showed some good cattle and took their share of the premiums. Thomas Clark, Beecher, Ill., tied the ribbons in this class, and his work gave satisfaction for there is no better judge and breeder of Hereford cattle in America.

ANGUS.

There were more Angus shown than Herefords, but the quality was not as good, about 85 head. Outside of eight or ten head this show was in breeding condition and did not carry flesh and finish enough for show animals. The strong show in this breed was made by Harrison & Harrison, Indianola, Neb., J. W. McClurg, of the same place, and W. J. Miller, Mets, Iowa. Mr. Thos. Clark tied the ribbons and his work could not be criticised.

GALLOWAYS.

There were but two exhibitors of Galloways, Straub Bros., Avoca, Neb., and J. A. Bales & Son, Stockport, Iowa, but the breed made up in quality what it lacked in numbers for we consider this breed the best in quality for its numbers of and breed there. Professor Smith placed the awards and his work was good as it always is.

POLLED DURHAMS.

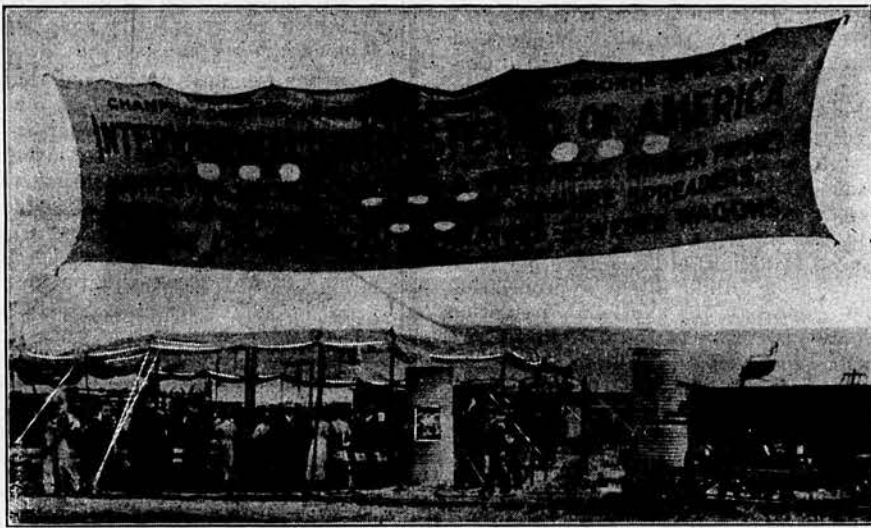
Polled Durhams were shown from Nebraska, Iowa, Wisconsin, and Indiana. It was a strong show all through the winners in most all cases were individuals of high merit and high class animals of the breed.

RED POLLS.

The Red Poll show was all from Nebraska. It was a good representation of the breed, showing the general purpose animal more than the beef or dairy types.

DAIRY BREEDS.

The exhibitors of Jerseys were all from Nebraska, Hunter & Smith, Beatrice and Lincoln; H. C. Young and Honeywell & Reedy both from Lincoln.



International Harvester Company's Display at the Nebraska State Fair.

It was a good representation of the Jersey cattle, some of them being very high class individuals. Most of the ribbons in this breed went to Messrs. Hunter & Smith. Prof. H. G. Van Pelt, from Ames, Iowa, tied the ribbons. His work throughout was good, but we could hardly agree with him in placing the yearling heifer Gales Queen over Emanon Tootsey, the latter was the best dairy form, had the best udder, teats, and milk veins, with the best handling qualities, but was a little old fashioned in head while Gales Queen had a beautiful head and more size.

HOLSTEINS.

The Holstein show was made up of three Nebraska herds, and one from Kansas. The Nebraska stock was shown in just breeding condition and could not compete successfully with the show herd brought out by C. F. Stone, Peabody, Kans. This herd showed in good form and took most of the ribbons. Prof. Van Pelt placed the awards, which was entirely satisfactory.

GUERNSEYS.

Only one Guernsey was shown, and of course took all the ribbons. H. C. Young, Lincoln, Neb., was the exhibitor.

THE HORSE SHOW.

The show of draft horses was a show long to be remembered for the size, quality, and draft type of the three classes.

PERCHERONS AND FRENCH DRAFT, BELGIAN, AND SHIRES AND CLYDES.

The exhibitors were all from Nebraska except two from Illinois. The Illinois exhibitors brought out some good stuff and took away some of the most valuable prizes.

Frank Iams, St. Paul, Neb., showed a lot of good ones as he always does and captured a great many of the best prizes. Watson Woods Bros., and Kelley, Lincoln Importing Horse Company, and O. P. Hendershot, showed some good ones and got their share of the ribbons.

W. E. Pritchard, Ottawa, Ill., tied the ribbons.

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COACHERS.

Not very many coach horses were shown, but some good ones were brought out. The Lincoln Imp. Horse Co.; Frank Iams, and Taylor & Jones, winning most of the ribbons. W. E. Pritchard placed the awards.

THE HOG SHOW.

Nebraska State Fair is noted for the number and quality of its hog show. The number was not quite up to last year but quality perhaps better, especially in the Duroc classes, the Durocs out numbering the Poland-Chinas by about 200 head.

We think the management is making a serious mistake in not giving the bacon breeds a classification. The bacon hog has come to stay and is getting more popular every year for it has proved itself to be a money-maker for the breeder and feeder. We hope the Nebraska State Fair will next year give the bacon breeds a classification worthy of the breed. The show this year was most all from Nebraska, as few came from outside the State. At this show the large Poland-China is king. The breeders of the small type do not show here. Size and quality is what pays the pure-bred breeder. Size was here, plenty of it, but not as much quality as we would like to see in this breed. Most of the prize winners showed quality and finish, some of them equal to the smaller type.

N. H. Gentry, Sedalia, Mo., tied the ribbons in his quick business-like way and we heard very little criticism among the breeders. The classes were large and some animals that did not fit out. Wetis... shrdl shrdl hrdl get inside the money were very high class and showed up well for the breeder. The senior boar class was one of the strong ones of this breed. Collosus

won the special \$50 cup offered by the Berkshire Record Company for best pigs in the State.

N. H. Gentry tied the ribbons in this class.

CHESTER-WHITES.

The Chester-Whites were out in larger numbers than the Berkshires, being 135 in the barns, most all from Nebraska, one exhibitor from Iowa and one from Missouri. The general exhibit was a good, useful lot of hogs, those that got inside the money had to be well fitted with quality and breed type. T. W. Miller, Menlo, Iowa, judged this class. The champion boar and sow both going to L. C. Reese, Prescott, Iowa.

SHEEP.

There were 125 head of sheep in the barn representing seven breeds. Robert Taylor, Abbott, Neb., showed Hampshire, Leicester, and Rambouillet without any competitor. Geo. Allen and Wm. H. Allen, of Lexington, Neb., showed Southdowns and divided the money the most going to Geo. Allen. Geo. Allen and M. and L. E. Bauer, Jameson, Mo., showed Shropshires and divided the money about even. Wm. L. Gove, Cheney, Neb., was the only exhibitor of Delaine Merinoes. Damrow Bros., Lincoln, Neb., and W. W. Waltmire, Peculiar, Mo., showed Oxford, Damrow Bros., winning both champions. S. J. Botts showed the only Hampshire and won all the ribbons.

EXHIBITORS AND AWARDS.

Horse Department.

PERCHERONS AND FRENCH DRAFT.

Judge—W. E. Pritchard, Ottawa, Ill.
 Burruss Bros., Carroll, Neb..... 9
 Frank Iams, St. Paul, Neb..... 8
 Jacob Wernsman, Cedar Bluffs, Neb..... 1
 Watson Woods Bros. & Kelley, Lincoln, Neb. 12
 North & Robinson, Grand Island and Carlo, Neb. 6
 Lincoln Importing Horse Co., Lincoln, Neb. 9
 Rhea Bros., Arlington, Neb..... 17
 LeRoy Judd, Dawson, Neb..... 1
 J. N. Harrison, Herman, Neb..... 8
 Finch Bros., Joliet, Ill..... 2
 Taylor & Jones, Williamsville, Ill..... 5
 O. P. Hendershot, Hebron, Neb..... 6
 Steve Mass, Roca, Neb..... 4
 L. Orlosky, Lincoln, Neb..... 2

Total 106

Aged stallions, 14 entries—1, Iams, on Medoc; 2, Iams, on Vainy; Taylor & Jones, on Rabzwell; 4, North & Robinson, on Mascaret.

Three-year-old stallion, 15 entries—1, Taylor & Jones, on Brilliant D; 2, Lincoln Imp. Horse Co., on Audoin; 3, Iams, on Castelain; 4, Iams, on Goblet.

Two-year-old stallions, 8 entries—1, Watson Woods Bros., & Kelley, on Garfield; 2, Iams, on Glaise; 3, Rhea Bros., on Hobson; 4, Taylor & Jones, on Briggs.

Yearling stallions, 2 entries—1, Taylor & Jones, on Prosper; 2, Rhea Bros., on Baxter.

Aged mares, 4 entries—1, Iams, on Aubepine; 2, Iams, on Renande; 3, Iams, on Polka; 4, Iams, on Masurk.

Three-year-old mares, 3 entries—1, Burruss Bros., on Flora; 2, Burruss Bros., on Friponne; 3, Iams.

Two-year-old mares, 2 entries—1, Iams, on Grotte; 2, Iams, on Gallienne.

Champion stallion, 3 entries—Taylor & Jones, on Brilliant D.
 Champion mare, 3 entries—Iams, on Aubepine.

AMERICAN BRED PERCHERONS AND DRAFTS.

Aged stallion, 4 entries—1, Taylor & Jones, on Putnam; 2, Rhea Bros., on Lorida 2d; 3, O. P. Hendershot, on Humbert; 4, O. P. Hendershot, on Billa Burkhardt.

Three-year-old stallion, 4 entries—1, Rhea Bros., on Jupiter; 2, Hendershot, on Searle; 3, Rhea Bros., on Marshall; 4, Finch Bros., on Ivanhoe.

Two-year-old stallion, 4 entries—1, Rhea Bros., on Big Boy; 2, Rhea Bros., on Nelson; 3, Hendershot, on Tourbillou; 4, Harrison, on Colonel Lawton.

Yearling stallion, 5 entries—1, Hendershot, on Sunshine; 2, Rhea Bros., on Jake; 3, North & Robinson, on Pascal; 4, Rhea Bros., on Superior.

Stallion colts, 3 entries—1, Hendershot, on King Monis; 2, Wm. Bute, on Rob Roy; 3, Harrison, on Brilliant.

Aged mares, 5 entries—1, North & Robinson, on Nora; 2, Wm. Bute, on Daisy; 3, Rhea Bros., on Queen; 4, Harrison, on Rosetta.

Two-year-old bred, 2 entries—1, North & Robinson, on Lenora; 2, Harrison, on Lone Star.

Mare colt, 2 entries—1, North & Robinson; 2, Harrison.

Yearling mare, 1 entry—Harrison, Queen Victoria.

Champion Stallion, 5 entries—Taylor & Jones, on Putnam.
 Champion mare, 4 entries—North & Robinson, on Lenora.

SPECIAL PRIZES BY PERCHERON SOCIETY OF AMERICA.

Judge—W. E. Pritchard, Ottawa, Ill.
 Best American bred stallion—1, Taylor, on Brilliant D; 2, Taylor, on Putnam 2d.

Best American bred mare—1, North & Robinson, on Lenore; 2, North & Robinson, on Nora.

Champion stallion, open class—1, Taylor & Jones, on Brilliant D; 2, Taylor & Jones, on Putnam 2d.

Champion mare, open class—1, Iams, on Aubepine; 2, North & Robinson, on Lenore.

Best 5 stallions owned by exhibitor—1, Taylor & Jones; 2, Iams.

Best 3 mares owned by exhibitor—1, Iams; 2, North & Robinson.

Best American bred 5 stallions owned by exhibitor—1, Taylor & Jones; 2, Rhea Bros.

Best American bred 3 mares owned by exhibitor—1, North & Robinson; 2, J. N. Harrison.

Best stud stallion and 4 mares—1, North & Robinson; 2, Iams.
Best stud, stallion, and 4 mares bred and owned by exhibitor—1, North & Robinson; 2, J. N. Harrison.

SHIRES.

Finch Bros., Joliet, Ill. 5
Taylor & Jones, Williamsville, Ill. 3
Watson Woods Bros. & Kelley, Lincoln, Neb. 4
North & Robinson, Grand Island, Neb. 5
LeRoy Judd, Dawson, Neb. 1

Total. 18

CLYDES AND SHIRES.

Judge—W. E. Pritchard, Ottawa, Ill.
Aged stallion, 5 entries—1, Taylor & Jones, on Hanley's Defiance; 2, Watson Woods Bros. & Kelley, on Togo; 3, Taylor & Jones, on Harold's Heir; 4, Finch Bros., on David Harrison.
Three-year-old stallion, 6 entries—1, Watson Woods Bros. & Kelley, on Tenside Victor King; 2, Taylor & Jones, on King Alfred; 3, North & Robinson, on Wonderlande Topman; 4, Finch Bros., on Justice.
Two-year-old stallion, 7 entries—1, Watson Woods Bros. & Kelley, on Nallstone Herald; 2, North & Robinson, on Manitou; 3, North & Robinson, on Gollath; 4, Finch Bros., on Joliet Black Jack.
Yearling stallion, 1 entry—Finch Bros., on Darlington.
Champion stallion—Taylor & Jones, on Marsley Defiance.

BELGIAN HORSES.

Judge—W. E. Pritchard, Ottawa, Ill.
Finch Bros., Joliet, Ill. 2
Taylor & Jones, Williamsville, Ill. 3
O. P. Hendershot, Hebron, Neb. 1
Burruss Bros., Carroll, Neb. 5
Frank Iams, St. Paul, Neb. 9
Watson Woods Bros. & Kelley, Lincoln, Neb. 1
North & Robinson, Grand Island, Neb. 2
LeRoy Judd, Dawson, Neb. 1

Total. 25

Three-year-old stallions, 4 entries—1, Taylor & Jones, on Debonaisse; 2, Iams, on Espoir; 3, Iams, on McMahon; 4, Finch Bros., on Burgoyne.
Aged stallion, 9 entries—1, Iams, on Gollath; 2, Taylor & Jones, on Pasport; 3, Iams, on Blenan as Bougart; 4, Finch, on Bismarck.
Two-year-old stallion, 7 entries—1, Taylor & Jones, on Mikado; 2, Iams, on Grippe.
Aged mare—Burruss Bros., on Laura de Rotheringham.
Three-year-old mare—1, Burruss Bros., on Dora de Courtier.
Two-year-old mare—Burruss Bros., on Rosette de Cortal.
Champion stallion, 3 entries—Taylor & Jones, on Debonaisse.
Champion mare, 3 entries—Burruss Bros., on Laura de Rotheringham.

ALL COACHES.

Judge—W. E. Pritchard, Ottawa, Ill.
Aged coaches, 4 entries—1, Lincoln Imp. Horse Co., on Lubben's Ringleader; 2, Lincoln Imp. Horse Co., on Lubben's Pilot; 3, Lincoln Imp. Horse Co., on Zanderelle; 4, Lincoln Imp. Horse Co., on Emil.
Three-year-old stallion, 2 entries—1, Iams, on Ambulant; 2, Iams, on Colorado.
Two-year-old stallion, 1 entry—Taylor & Jones, on Mannon.
Champion stallion, 3 entries—Lincoln Imp. Horse Co., on Lubben's Ringleader.

HACKNEYS.

Judge—W. E. Pritchard, Ottawa, Ill.
James McCleave won everything in Hackneys.

ASSES.

Judge—W. E. Pritchard, Ottawa, Ill.
Three-year-old jacks—1, O. P. Hendershot, on Reed; 2, Varney Bros. & Ehler, on Brilliantine.
Two-year-old jacks—O. P. Hendershot, on Florida.
Champion jack—O. P. Hendershot, on Florida.

Cattle Department.

SHORTHORNS.

J. G. Brenizer, Broken Bow, Neb. 8
J. A. McFarlane, Fairfield, Neb. 1
Hill Bros., Trumbull, Neb. 1
Hubbard & Killough, Dorchester, Neb. 1
C. A. Barnard, Filley, Neb. 11
T. K. Tomson & Sons, Dover, Kans. 1
Peck & Rothwick, Ft. Calhoun, Neb. 2
C. F. Mitchell, St. Francis, Iowa. 12
Geo. H. White, Emerson, Iowa. 13
H. K. Frantz, Uni Place, Neb. 6
Chas. Hitchie, Gresham, Neb. 1
Chas. Behlers, Wisner, Neb. 4
Owen Kane, Wisner, Neb. 2
Howell Reese & Son, Wisner, Neb. 10
S. A. Nelson, Malcolm, Neb. 1
W. H. McLaughlin, Shelby, Neb. 1
L. T. Frederick, Memphis, Neb. 1
R. Wolfe, Genoa, Neb. 1
Chas. D. Knight, Oketo, Kans. 4
I. W. Chappell, Brady, Neb. 1
Thomas Andrews, Cambridge, Neb. 6
A. R. Wilson & Sons, Belvidere, Neb. 5
J. F. Stevenson, Hancock, Iowa. 1
Flynn Farm, Des Moines, Iowa. 10
Everette Hayes, Hiawatha, Kans. 11
C. W. Dawes, Harlan, Iowa. 10
G. H. Hasebrook, Bladen, Neb. 5
A. C. Shallenberger, Alma, Neb. 10

Total. 147

Two-year-old heifer, 7 entries—1, Tomson & Son, on Delightful; 2, White, on Julia C; 3, Flynn Farm Co., on Fashions Roan; 4, Hasebrook, on Clara Belle; 5, Brenizer, on Bouffe Lilly.

Senior yearling heifer, 7 entries—1, Thomas, on Christmas Lassie; 2, Andrews, on Ethel; 3, White, on Maple Hill Ruby; 4, Wilson & Son, on Cedar Hill Mary; 5, Davis & Son, on Victoria Ted.

Aged cow, 6 entries—1, Tomson & Son, on College Mary; 2, White, on Toveria; 3, Hayes, on Glace; 4, Kane, on Lady Fragrant; 5, Flynn Farm Co., on Anoka Broadhooker.

Produce of cow—1, Tomson, on 2d Duchess of Norwood; 2, Hasebrook, on Mary Belle; 3, Shallenberger, on Butterfly Jubilee; 4, Tomson, on Victoria of Maple Hill; 5, Brenizer, on Queen Nonpareil.

Get of sire—1, Shallenberger; 2, Tomson & Son; 3, Tomson & Son; 4, Shallenberger; 5, Brenizer.

Calf herd, 3 entries—1, Shallenberger; 2, Tomson; 3, Dawes & Son.
On calf herd, 3 entries—1, Shallenberger, headed by Royal Rex; 2, Tomson, headed by Director; 3, Dawes & Son, headed by Ringmaster.

Get of sire—1, Shallenberger, on Imp. Diamond Rex; 2, Tomson & Son, on Gallant Knight; 3, Tomson & Son, on Archer; 4, Shallenberger, on Imp. Diamond Rex; 5, Brenizer, on Crimson Scot.

Junior champion cow, 4 entries—Hasebrook, on Grand Belle.

Grand champion cow, 2 entries—Tomson, on Delightful.

Aged herd, 4 entries—1, Tomson, on Lord Norfolk; 2, White, on The Dreamer; 3, Flynn Farm Co., on The City Marshall.

Young herd, 4 entries—1, Shallenberger; 2, Tomson; 3, Andrews; 4, Flynn Farm Co.; 5, Dawes & Son.
Aged bull—Jolly Hampton; 2, C. A. Filley, on Jolly Hampton; 3, C. A. Barnard, Filley, Neb., on Glositer's Crown; 3, Frantz, on Lavender Victor.

Junior heifer calf—1, Shallenberger, on Miss Nelson; 2, Shallenberger, on Maud 51st; 3, White, on Hampton Lady; 4, Tomson & Son, on Velma; 5, Flynn Farm Co., on Sultan F.

Senior champion bull, 2 entries—Kane, on Gondomar.
Junior champion bull, 2 entries—Reese & Sons, on Ruberta's Goods.

Grand champion bull, 2 entries—Reese & Sons, on Ruberta's Goods.
Champion aged cow, 2 entries—Tomson & Sons, on Delightful.

Senior bull calf, 15 entries—1, Flynn Farm Co., on Lovat Champion F; 2, Mitchell & Son, on Scottish Goods; 3, Dawes & Son, on Ringmaster; 4, Tomson & Son, on Director; 5, Chappell, on Missler's Wonder.

Junior bull calf, 10 entries—1, Shallenberger, on Royal Rex; 2, Shallenberger, on King of Diamonds; 3, Brenizer, on Missler's Scott; 4, Hasebrook, on Elector; 5, Brenizer, on Crimson Lad.

Senior heifer calf—1, Tomson & Son, on Vanity; 2, Kane, on Choice Girl; 3, Flynn Farm Co., on Countess F; 4, Shallenberger, on Blushing Beauty; 5, Shallenberger, on Belle of the Season.

Junior heifer yearling—1, Hasebrook, on Grand Belle; 2, Shallenberger, on Bonnie Gem; 3, Andrews, on Isabella Princess; 4, Shallenberger, on Rosy Morning; 5, Flynn Farm Co., on Graceful Lady.

Two-year-old bull, 10 entries—1, Owen Kane, on Glondomar; 2, White, on The Dreamer; 3, Mitchell, on Acanthus King.

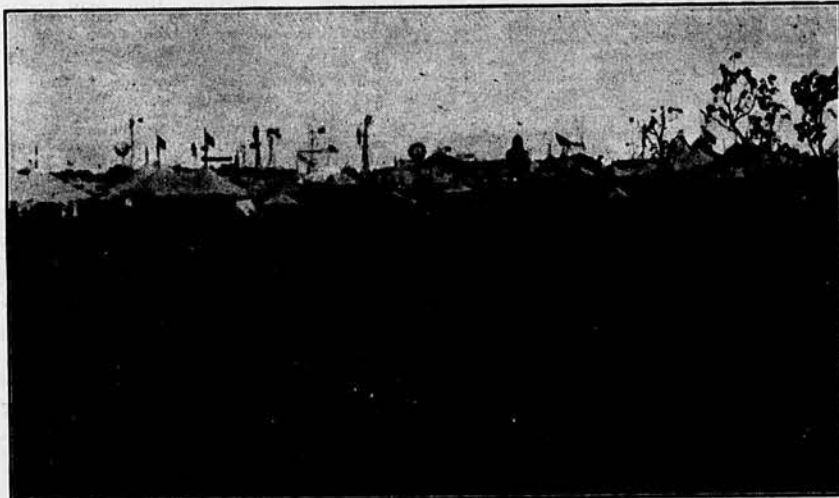
Senior yearling bull, 7 entries—1, Reese & Son, on Ruberta's Goods; 2, Stevenson, on Pinehurst Champion; 3, Tomson & Son, on Gallant Knight Heir; 4, McFarlane, on King Fragrant; 5, Frederick, on Royal Banner.
Junior yearling bull—1, Peck & Rothwick, on Lord of Hillcroft; 2, Andrews & Son, on Royal Diadem; 3, Brenizer, on Crimson King; 4, McLaughlin, on Nonpareil.

HEREFORDS.

O. E. Green, Genoa, Neb. 1
Cornish & Patten, Osborn, Mo. 10
Minier Bros., Craig, Neb. 10
Aldrich Stock Farm, David City, Neb. 6
J. G. Von Seggern, Wisner, Neb. 7
Geo. Darwin, Virginia, Neb. 1
Mousel Bros., Cambridge, Neb. 11
G. G. Clements, Ord, Neb. 12

Total. 78

Judge—Thomas Clark, Beecher, Ill.
Senior yearling heifer, 3 entries—1, Mousel



A View of the Manufacturers Exhibits at the Nebraska State Fair.

Bros., on Jennie; 2, Clement, on Treasure; 3, Aldrich, on Lily Sallor.

Junior yearling heifer, 6 entries—1, Mousel Bros., on Missouri Queen; 2, Von Seggern, on Kathleen 2d; 3, Minier Bros., on Dew Drop; 4, Clement, on Vivian; 5, Von Seggern, on Shadland's Pride.

Senior heifer calf, 7 entries—1, Cornish & Patten, on Mystic; 2, Minier Bros., on Petunia; 3, Cornish & Patten, on Florence Stamp; 4, Von Seggern, on Miss Columbia; 5, Clement, on Vilvet.

Aged bulls, 6 entries—1, Cornish & Patten, on Western Anxiety; 2, Clement, on Fast Freight; 3, Minier Bros., on Monarch; 4, Green, on Beau Mischief; 5, Aldrich, on Tommy B.

Senior yearling bull, 2 entries—1, Cornish & Patten, on Gomez Perfection; 2, Clement, on Comrade 2d.

Junior yearling bull, 3 entries—1, Von Seggern, on Columbus, Jr.; 2, Cornish & Patten, on General Worley; 3, Darwin, on General Fenwick.

Senior bull calf, 7 entries—1, Mousel Bros., on Precepts 30th; 2, Cornish & Patten, on Beau Weston; 3, Minier Bros., on Diamond; 4, Clements, on Anxiety All; 5, Von Seggern, on Columbus K.

Junior bull calf, 2 entries—1, Mousel Bros., on Harold; 2, Cornish & Patten, on Anxiety Stamp.

Junior heifer calf, 10 entries—1, Cornish & Patten, on Ruby 2d; 2, Mousel Bros., on Missouri Queen 3d; 3, Minier Bros., on Lady; 4, Mousel Bros., on Princess Lassie 2d; 5, Clement, on Viva.

Exhibitor's aged herd, 2 entries—1, Mousel Bros., on Alto Hesiod; 2, Clement, on Fast Freight.

Breeders' young herd, 1 entry—Clement, on Anxiety All.

Calf herd, 3 entries—1, Cornish & Patten; 2, Minier Bros.; 3, Clement.

Two-year-old bull, 3 entries—1, Cornish & Patten, on Beau Carlos; 2, Mousel Bros., on Alto Hesiod; 3, Mousel Bros., on Princess 4th.

Aged cow, 5 entries—1, Mousel Bros., on Princess Lassie; 2, Von Seggern, on Mayflower; 3, Mousel Bros., on Wilton Maid; 4, Clement, on Princess Flossie; 5, Aldrich, on English Lady.

Two-year-old cows, 6 entries—1, Mousel Bros., on Miss Princess 8th; 2, Von Seggern, on Modesty; 3, Clement, on Golden Lassie; 4, Aldrich, on Flirt.

Get of sire, 3 entries—1, Cornish & Patten, on Weston Stamp 16th; 2, Clement, on Fast Freight; 3, Minier Bros., on Monarch.

Senior champion bull, 2 entries—Cornish & Patten, on Beau Carlos.

Junior champion bull, 4 entries—Mousel Bros., on Princess 30th.

Grand champion bull—Cornish & Patten, on Beau Carlos.

Senior champion cow, 2 entries—Mousel Bros., on Miss Princess 8th.

Junior champion cow, 4 entries—Mousel Bros., on Missouri Queen 2d.



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Grand champion cow, 2 entries—Mousel Bros., on Miss Princess 8th.

ADDITIONAL AWARDS.

Produce of cow—1, Clements; 2, Cornish & Patten.

POLLED DURHAMS.

L. T. Frederick, Memphis, Neb. 2
L. S. Huntley & Son, Charlton, Iowa. 13
H. C. Luckey, Lincoln, Neb. 5
Wm. Smiley, Albany, Wis. 8
Shaver & Deuker, Kalona, Iowa. 18
W. J. Armstrong, Elgin, Neb. 5
Oscar Hadley, Plainfield, Ind. 10

Total. 61

Aged bull, 4 entries—1, Shaver & Deuker, on Roan Hero; 2, Huntley & Sons, on Champion of Iowa; 3, Smiley, on Victoria Lad; 4, Armstrong, on Wild Eyes Secret.

Two-year-old bull, 4 entries—1, Deuker & Shaver, on Arcadia Duke; 2, Hadley, on Buttonwood Marshal; 3, Luckey & Kitter, on Joker; 4, Smiley, on Lulu's Tip.

Senior yearling bull, 2 entries—1, Huntley, on Amity Bruce; 2, Frederick, on Baron Lester.

Junior yearling bull, 4 entries—1, Deuker &

Buttonwood Ophelia 3d; 2, Deuker & Shaver, on Orange Blossom; 3, Huntley & Sons, on Brunette Carrie; 4, Armstrong, Lady Rumples.

Senior champion bull, 2 entries—Deuker & Shaver, on Roan Hero.

Junior champion bull, 4 entries—Hadley, on Buttonwood Tip 5th.

Grand champion bull, 2 entries—Deuker & Shaver, on Roan Hero.

Senior champion cow, 2 entries—Deuker & Shaver, on Royal Flora.

Junior champion cow, 2 entries—Hadley, on Buttonwood Jenny Lind 4th.

ABERDEEN-ANGUS.

Judge—Thomas Clark, Beecher, Ill.
T. A. Glerens, Lincoln, Neb. 17
D. N. Syford, Lincoln, Neb. 7
Harrison & Harrison, Indianola, Neb. 9
J. W. McClurg, Indianola, Neb. 6
W. J. Miller, Metz, Iowa. 12
J. Auracher, Shenandoah, Iowa. 3
Damrow Bros., Lincoln, Neb. 10

Total. 64

Senior yearling bull, 2 entries—1, Miller, on Sir Novin; 2, Ehlers, on The Tooter.

Junior yearling bull, 4 entries—1, Auracher, on Shenandoah Herod; 2, Damrow Bros., on Hudson's Pride; 3, Syford, on Black Bugle; 4, Givens, on Haddo of Walton.

Senior bull calf, 3 entries—1, Harrison & Harrison, on Gay Precepts; 2, Miller; 3, Harrison.

Aged bulls, 4 entries—1, J. W. Miller, on Edamon of Quietdale; 2, Harrison & Harrison, on Squire of Theakston; 3, McClurg & Son, on Ernest; 4, Givens, on King Lawn.

Two-year-old bull, 1 entry—Damrow Bros. Get of sire, 3 entries—1, Miller, on Black Prince of Estell; 2, McClurg, on Ernest; 3, Harrison & Harrison, on Blackbird Favorite Lad.

Produce of cow, 4 entries—1, Miller; 2, McClurg; 3, Harrison & Harrison; 4, Givens; 5, Damrow Bros.

Senior yearling heifer, 4 entries—1, McClurg, on Queen Miller of Sundance; 2, Miller, on Weed Lawn Pride; 3, McClurg, on Queen Mary of Sundance.

Grand champion cow, 2 entries—Deuker & Shaver, on Royal Flora.

Junior yearling heifer, 12 entries—1, Miller, on Queen Snowflakes; 2, Miller on Metz Colca; 3, Harrison & Harrison, on Alfalfa Blackbird; 4, Auracher, on Shenandoah Blanche; 5, Givens, on Valda Gratitude.

Junior bull calf, 6 entries—1, Miller, on King Snowflakes; 2, Damrow Bros.; 3, McClurg, on Sir Queenman of Soudana; 4, Damrow Bros.; 5, Givens.

Aged cow, 12 entries—1, Miller, on Gussie; 2, Auracher, on Shenandoah Belle; 3, Harrison & Harrison, on Alfalfa Queen 3d; 4, McClurg & Son, on Sunny South Haddo 2d.

Two-year-old heifers, 4 entries—1, Miller on Alicia 9th; 2, Miller, on Queen Snowflakes; 3, Harrison & Harrison, on Alfalfa Pride; 4, Syford, on Olin's Pride.

Junior cow, 4 entries—1, Miller, on Queen Snowflakes.

Grand champion cow, 2 entries—Miller, on Gussie.

Exhibitor's aged herd, 2 entries—1, Miller, on Eglamore of Quietdale; 2, Harrison & Harrison, on Squire of Theakston.

Breeders' young herd, 3 entries—1, Miller, on Sir Novin 2d; 2, —; 3, Givens, on Haddo of Walton.

Junior heifer calf, 8 entries—1, Harrison & Harrison, on Alfalfa Erica; 2, Miller, on Metz Beauty; 3, Givens; 4, Harrison & Harrison, on Alfalfa B 5th; 5, Givens.

Senior champion bull, 1 entry—Miller, on Eglamore of Quietdale.

Junior champion bull, 4 entries—Miller, on King Snowflakes.

Grand champion bull, 2 entries—Miller, Eglamore of Quietdale.

Senior champion cow, 2 entries—Miller, on Gussie.

GALLOWAYS.

Judge—Prof. H. R. Smith, Neb. Exp. Station, Straub Bros., Avoca, Neb. 12
J. A. Bales & Son, Stockport, Iowa. 11

Total. 23

Aged bull, 1 entry—Bayles & Son, on Wiles McDougal.

Two-year-old, 2 entries—1, Straub Bros., on Champion of Tabroch; 2, Straub Bros., on Compact.

Senior yearling bull, 1 entry—Straub Bros., on Utility.

Junior yearling heifer, 3 entries—1, Straub Bros., on Princess Standard; 2, Bales & Son, on Lilly May; 3, Bales & Son, on Lilly Gay.

Senior heifer calf, 3 entries—1, Bales & Son, on Lady Dorothea; 2, Straub Bros., on Merry Maid; 3, Bales & Son, on Annie David 2d.

Junior heifer calf, 1 entry—Straub Bros., on Sweet Maid.

(Continued on next page.)



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Senior dearliff heifer, 2 entries—1, Bales & Son, on Vada; 2, Straub Bros., on Meg Standard.

Aged cows, 5 entries—1, Bales & Son, on Lady Graceful; 2, Straub Bros., on Lady Douglas; 3, Straub Bros., on Mollie Standard.

Junior yearling bull, 2 entries—1, Bales & Son, on Douglas of Meadow Lawn; 2, Straub Bros., on Noble Standstill.

Junior bull calf, 1 entry—Bales & Son, on Graceful Lad.

Aged cow, 4 entries—1, Straub Bros., on Lady of Meadow Lawn; 2, Bales, on Hawkeye Lady; 3, Bales, on Dorothea; 4, Straub Bros., on Valentine of Wavertree.

Exhibitor's aged herd, 3 entries—1, Straub Bros., on Capt. 4th of Toobach; 2, Bales & Son, on Wiles McDougal; 3, Straub Bros., on Compact.

Breeders' young herd, 3 entries—1, Bales & Son; 2, Straub Bros., on Utility.

Get of sire, 3 entries—1, Bales & Son, on Wiles McDougal; 2, Straub Bros., on Scottish Standard of Durham; 3, Straub Bros., on Hill.

Produce of cow, 4 entries—1, Straub; 2, Bales; 3, Bales.

Senior heifer calf, 3 entries—1, Harrison & Harrison, on Alfalfa Blackbird; 2, McClurg, on Metz Matilda; 3, Miller, on Metz Matilda 9th.

Senior champion bull, 2 entries—Straub Bros., on Captain 4th of Tarbrook.

Junior champion bull, 2 entries—Bales & Son, on Graceful Lad.

Grand champion bull, 2 entries—Straub Bros., on Captain 4th of Tarbrook.

Senior champion cow, 2 entries—Straub Bros., on Sadie.

Junior champion cow, 4 entries—Bales & Son, on Vada.

Grand champion cow, 2 entries—Straub Bros., on Sadie.

RED POLLS.

Judge—Prof. H. R. Smith, Neb. Exp. Station, Frank Davis, Holbrook, Neb.17

Chas. Graft, Bancroft, Neb.11

Geo. P. Schwab & Sons, Clay Center, Neb.10

Total.38

Aged bull, 1 entry—Davis & Son, on Cremona.

Two-year-old bull, 3 entries—1, Graft, on Morning Star; 2, Graft, on Iro; 3, Schwab & Son, on Commander.

Junior yearling bull, 2 entries—1, Graft, on Leone; 2, Schwab & Son, on Flaxstaff.

Senior bull calf, 3 entries—1, Davis & Sons, on Favorite; 2, Davis & Sons, on LeRoy; 3, Schwab & Sons, on Pathfinder.

Junior bull calf—1, Davis & Sons, on Napoleon; 2, Davis & Sons, on Harrier; 3, Schwab & Son, on Taff.

2, Graft, on Rupert; 3, Graft, on Dew Drop; 4, Schwab & Son, on Eva; 5, Davis & Sons, on Princess.

Two-year-old heifer, 3 entries—1, Schwab & Son, on Eva Crowder; 2, Davis & Sons, on Lily of Lane; 3, Davis & Sons, on Belle Flower.

Young herd—1, Graft; 2, Davis; 3, Schwab & Son.

Get of sire—1, Graft, on One Price; 2, Davis, on Cremona; 3, Schwab & Son.

Produce of cow—1, Schwab, on Eva Crowder; 2, Graft, on Irene; 3, Graft, on Daisy 2d.

Aged herd, 3 entries—1, Graft, on Morning Star; 2, Davis & Son, on Cremona; 3, Schwab, on Flaxstaff 8th.

Calf herd, 1 entry—Davis & Sons, on Napoleon.

Junior yearling heifer, 5 entries—1, Graft, on Lena; 2, Graft, on Florence; 3, Schwab & Sons, on Meadow Bird; 4, Graft, on Della D; 5, Davis & Sons, on Dew Belle.

Senior heifer calf, 4 entries—1, Schwab & Sons, on Eva Crowder 6th; 2, Graft, on Excellence; 3, Davis & Sons, on Gladys; 4, Davis & Sons, on Princess Lady.

Junior heifer calf, 4 entries—1, Davis & Sons, on Nora; 2, Schwab & Sons, on Matilda Chambers; 3, Davis & Sons, on Dorothy; 4, Graft, on Imogene.

Senior champion bull, 2 entries—Davis & Sons, on Cremona.

Junior champion bull, 3 entries—Graft, on Faith.

Grand champion bull—Davis & Sons, on Cremona.

Senior champion cow, 2 entries—Graft, on Ruberta.

Junior champion cow, 3 entries—Graft, on Lena.

Grand champion cow, 2 entries—Graft, on Ruberta.

Senior yearling heifer—1, Schwab & Son; 2, Davis & Son; 3, Davis & Son.

GUERNSEY.

H. C. Young, Lincoln, Neb.1

Senior heifer calf, 1 entry—H. C. Young, on Golden Belle Smith.

JERSEYS.

Judge—J. G. Van Pelt, Iowa Exp. Station, Hunter & Smith, Beatrice and Lincoln, Neb.12

H. C. Young, Lincoln, Neb.15

Honeywell & Reedy, Lincoln, Neb.13

Total.40

Aged bulls, 3 entries—1, Hunter & Smith, on Emmanon; 2, H. C. Young, on Guenon's Gay Lad; 3, Honeywell & Reedy, on Prince Fontaine.

Two-year-old bull, 3 entries—1, Honeywell & Reedy, on Golden Ferris Grandson; 2, H. C. Young, on Gertie's Son Gamont; 3, Honeywell & Reedy, on Nebraska Fortshire.

Bull calves, 6 entries—1, Hunter & Smith, on Victoria Lad; 2, H. C. Young, on Geresos King Rex; 3, Honeywell & Reedy, on May Koffer.

Two-year-old heifer, 5 entries—1, Hunter & Smith, on Victoria's Fair Lady; 2, H. C. Young, on Gay Lad's Girl; 3, Honeywell & Reedy, on Mariona; 4, Honeywell & Reedy, on Prince Gem; 5, Hunter & Smith, on Victoria's Golden Fern.

Yearling heifer, 6 entries—1, H. C. Young, on Gale's Queen; 2, Hunter & Smith, on Emmanon's Tootsy; 3, Honeywell & Reedy, on Ida Golden; 4, Young, on Gay Lad's Etta; 5, Honeywell & Reedy, on Decanter's Spot; 6, Hunter & Smith, on Roy's Gem.

Get of sire, 3 entries—1, Young; 2, Hunter & Smith; 3, Honeywell & Reedy.

Produce of cow—1, Young; 2, Hunter & Smith; 3, Honeywell & Reedy.

Breeders' young herd, 2 entries—1, Hunter & Smith; 2, Young; 3, Honeywell & Reedy.

Aged cows, 4 entries—1, Hunter & Smith, on Daisy Maid; 2, Hunter & Smith, on Pedros Lovely; 3, Hunter & Smith, on Exiles Cafe; 4, Hunter & Smith, on Little Jubilee Pogue.

Senior heifer calf, 6 entries—1, Honeywell & Reedy; 2, Young; 3, Hunter & Smith; 4, Young; 5, Hunter & Smith.

Junior heifer calf, 5 entries—1, Hunter & Smith; 2, Young; 3, Young; 4, Honeywell & Reedy; 5, Young.

Senior champion bull—Hunter & Smith, on Emmonon.

Junior champion bull—Hunter & Smith, on Victoria Lad.

Grand champion bull—Hunter & Smith, on Emmonon.

Senior champion cow—Hunter & Smith, on Dairy Maid.

Junior champion cow—Young, on Galls Queen.

Grand champion cow—Hunter & Smith, on Dairy Maid.

Exhibitor's herd, 3 entries—1, Hunter & Smith; 2, Young; 3, Honeywell & Reedy.

HOLSTEINS.

Judge—H. G. Van Pelt, Iowa Exp. Station, John C. Doubt & Sons, Havelock, Neb.11

C. F. Stone, Peabody, Kans.17

Alex. Sneddon, Eagle, Neb.14

Dr. B. B. Davis, Omaha, Neb.1

Total.43

Aged bull, 4 entries—1, Stone, on Ethyl Alexander; 2, Sir Netherlands; 3, Doubt & Sons, on Regola's Missouri Chief; 4, Sneddon.

Two-year-old heifer, 5 entries—1, Stone, on Josephine Gerben Alex; 2, Stone, on Josephine Gerben de Kol; 3, Doubt, on Gerben Maid Mechthilde; 4, Sneddon, on Hannah Leda; 5, Sneddon, on Iza Leda.

Yearling heifer, 7 entries—1, Stone, on Lady Truth Gerben; 2, Stone, on Josephine Gerben; 3, Sneddon, on Madeline Lincoln; 4, Sneddon, on Margurite Leda; 5, Doubt & Son, on Nellie Gerben; 6, Doubt & Son, on Minature Gerben.

Senior calves, 4 entries—1, Stone, on Beechwood's Model; 2, Sneddon, on Violet Parthena Leda; 3, Doubt & Son, on Dora Gerben Hengervelt; 4, Sneddon, on Fannie Princess.

Aged cow, 9 entries—1, Stone, on Mary Ke Gerben 4th; 2, Sneddon, on Annie V; 3, Stone, on Moberly Beechwood; 4, Stone, on Lady Parthena; 5, Doubt & Son, on Carlotia Abekirk; 6, Sneddon, on Fannie B 2d.

Two-year-old bull, 1 entry—C. F. Stone, on Karen Netherlands de Kol.

Yearling bull, 1 entry—C. F. Stone, on Sir Pontiac.

Bull calves, 7 entries—1, B. B. Davis, on Kalmuck Skylark Johanna; 2, C. F. Stone, on Sammy; 3, C. F. Stone, on Joanna Greenwood.

Produce of cow—1, Stone; 2, Sneddon; 3, Doubt.

Get of sire, 2 entries—1, Stone; Sneddon.

Breeders' young herd, 3 entries—1, Stone; 2, Doubt & Son; 3, Sneddon.

Junior heifer calf, 5 entries—1, Stone; 2, Sneddon; 3, Sneddon; 4, Doubt & Son; 5, Sneddon.

Senior champion bull—Stone, on Ethel Alexander Sir Netherlands.

Junior champion bull—Stone, on Sir Pontiac Marie Hengervelt.

Grand champion bull—Stone, on Ethel Alexander Sir Netherlands.

Senior champion cow—Stone, on Maryke Gerben 4th.

Junior champion cow—Stone, on Lady Truth Gerben.

Grand champion cow—Stone, on Maryke Gerben 4th.

Exhibitor's herd, 4 entries—1, Stone; 2, Stone; 3, Doubt & Son; 4, Sneddon.

Swine Department.

POLAND-CHINAS.

Judge—N. H. Gentry, Hill Bros., Trumbull, Neb.7

J. Plug & Son, Exeter, Neb.7

J. H. Hamilton & Son, Guide Rock, Neb.14

J. M. Trowbridge, Bethany, Neb.11

B. C. Longan, Florence, Neb.11

F. R. Barrett, Adams, Neb.6

W. J. Armstrong, Elgin, Neb.8

M. O. Frosted, Bradish, Neb.3

W. H. Beigan, Raymond, Neb.12

John M. Frazer & Son, Ft. Crook, Neb.10

H. B. Francisco, Hastings, Neb.2

Jos. Schmidt & Son, Wymore, Neb.16

J. B. Simpkins & Son, DeWitt, Neb.8

J. C. Meese, Ord, Neb.12

Cavett Bros., Phillips, Neb.15

Homer L. McKelvie, Fairfield, Neb.4

S. McKelvie & Son, Fairfield, Neb.11

J. A. McFarlane, Clay Center, Neb.5

John Schmal, Sutton, Neb.14

E. E. Matticks & Son, Spring Ranch, Neb.12

W. M. Conn, Uita, Neb.14

B. E. Ridgely, Pickrell, Neb.12

Jas. F. Menahan, Summerfield, Kans.3

O. G. Smith & Son and E. H. Andrews, Kearney, Neb.2

W. A. Lingford, Bannock, Neb.3

W. E. Willey, Steele City, Neb.8

Dawson & Son, Endicott, Neb.24

L. P. Fuller, Morrowville, Kans.5

R. B. Baird, Central City, Neb.6

J. A. Monroe, Morrowville, Kans.4

Lee Gress, Nelson, Neb.7

Selts Bros. & Knight, Bethany, Neb.22

R. D. Spelts, Bethany, Neb.20

F. K. Riggs, Archer, Neb.12

W. B. Albertson, Bethany, Neb.12

H. C. Luckey, Bethany, Neb.30

John Weber & Sons, Ohio, Neb.24

Paul Weber & Sons, Alexandria, Neb.9

Thomas F. Walker, Alexandria, Neb.9

J. C. Dunn, Dalton, Neb.11

E. C. Dart, Exeter, Neb.23

D. Bolte, Waco, Neb.11

E. F. Jackson, Raymond, Neb.17

C. A. Lewis, Beatrice, Neb.6

J. L. Johnson, Lindsay, Neb.8

S. D. Vertrees, Beatrice, Neb.1

J. Elserbeck, Beatrice, Neb.2

Total.479

Aged boars—1, McKelvie & Son, on Max Dude; 2, Dunn, on Expander; 3, Vertrees, on Millers Columbia Chief; 4, Lewis, on Top Chief; 5, Dawson's Sons, on Pan Wonder.

Senior yearlings—1, Dawson's Sons, on Colosseus; 2, Hamilton & Son, on Big Medium; 3, Cavett Bros., on Longfellow Second; 4, Matticks, on Massive; 5, O. G. Smith & Son and E. H. Andrews, on Nebraska Sunshine.

Junior yearlings—1, Smith & Andrews, on Bellmittle; 2, McKelvie, on Hadley Gold Dust; 3, Meese Bros., on Union Leader; 4, J. L. Johnson, on Big Prospect; 5, Frazer & Son, on Frazer's Redley.

Senior boar pig—1, Hamilton & Son, on Son of I M Allerton; 2, Dart, on son of Black Chief; 3, Hamilton & Son, on son of I M Allerton; 4, Dart, on son of Black Chief; 5, Meese, on son of Banner Boy.

Junior boar pig—1, Walker & Son, on son of Exception; 2, Schmitz, on son of Dorsey's Perfection 2d; 3, Dart, on son of Black Chief; 4, Dart, on son of Black Chief; 5, McKelvie & Son, on son of Max Dude.

Aged sows, 8 entries—1, Schmidt & Son, on Stylish Gosick; 2, Hamilton & Son, on Miss Shattuck; 3, Bakewell, on Famo L; 4, H. C. Dawson's & Sons, on Queenover 2d; 5, Jackson & Sons, on Rosa.

Junior yearling sows, 11 entries—1, J. C. Meese, on Lady Mastiff; 2, John McFarlane, on Mogul 2d; 3, Schmidt, on I Am Courtin; 4, Dawson & Sons, on Grand Queen; 5, Luckey, on Sow by Neb. Perfection.

Senior yearling sow, 5 entries—1, Schmidt & Son, on Violet; 2, Schmidt & Son, on Malden Rose; 3, Dawson & Sons, on Lady Expansion; 4, Walker & Son, on Sow by Exception; 5, Frosted, on Proud Lady.

Senior sow pig, 13 entries—1, Dawsons & Sons, on Sow by Grandlook; 2, Dawsons & Sons, on Sow by Grandlook; 3, Meese, on Sow by Orphan Boy; 4, Hamilton & Son, on Sow by I Am Allerton; 5, Hamilton & Son, on Sow by I Am Allerton.

Junior sow pig, 17 entries—1, Dawsons & Sons, on Sow by Colosseus; 2, Dunn, on Sow by Expander; 3, Dart, on Sow by Black Chief; 4, Dart, on Sow by Black Chief; 5, D. C. Loneragan, on Sow by Guy Price 2d.

Aged herd, 4 showings—1, Dawson & Sons; 2, Smith & Son; 3, Homer L. McKelvie; 4, Meese, on Breders' young herd, 4 showings—1, Dawson & Son; 2, Hamilton & Son; 3, McFarlane; 4, Cavett Bros.

Get of sire, 6 entries—1, Schmidt & Son, on Dorsey's Perfection 2d; 2, Dawson & Son, on Grand Look; 3, Hamilton & Son, on I Am Allerton; 4, Cavett Bros., on Longfellow 2d.

Produce of sow, 4 entries—1, Dawson & Campbell, on Pan Over Queen; 2, Dart, on Zor Vic; 3, Baird, on Purple Girl; 4, Cavitt Bros., on Maude 2d.

Champion boar, 4 entries—McKelvie & Son, on Max Dude.

Champion boar bred by exhibitor—Cavett Bros., on Longfellow 2d.

Champion sow—Schmidt & Son, on Violet.

Champion sow bred by exhibitor—Schmidt & Son, on Violet.

BERKSHIRES.

Judge—W. H. Gentry, Sedalia, Mo.3

Beeson & Kimbrough, Geneva, Neb.3

J. P. Scherzinger, Nora, Neb.11

Muirhead & Gorton, Pawnee City, Neb.5

Honeywell & Reedy, Lincoln, Neb.8

J. M. McPherson & Son, Stuart, Iowa.12

C. W. Miller, Menlo, Iowa.4

F. A. Scherzinger, Nelson, Neb.3

W. R. Holt, Falls City, Neb.27

Total.73

Aged boars, 4 entries—1, Holt, on Longfellow's Premier; 2, F. A. Scherzinger, on Homestead Model; 3, Honeywell & Reedy, on Summit; 4, McPherson & Son, on General Logan.

Senior yearling boar, 2 entries—1, Honeywell & Reedy, on Duke of Emerald; 2, Holt, on Orphan Boy.

Junior yearling boar, 5 entries—1, J. P. Scherzinger, on Nebraska Longfellow; 2, Muirhead & Gorton, on Nebraska Royal; 3, J. M. McPherson & Son, on Prince Lee; 4, W. R. Holt, on Master Mack; 5, Honeywell & Reedy.

Senior boar pig, 7 entries—1, W. R. Holt, on King Longfellow; 2, Mrs. W. R. Holt, on Royal Duke; 3, McPherson; 4, W. R. Holt; 5, W. R. Holt.

Junior boar pig, 10 entries—1, Miller & Dietrich; 2, J. P. Scherzinger; 3, J. P. Scherzinger; 4, Holt; 5, Scherzinger.

Aged sow, 4 entries—1, W. R. Holt, on Tilde's Model; 2, F. R. Scherzinger, on Homestead Empress 2d; 3, McPherson, on Mac's Lady Logan; 4, Honeywell & Reedy, on Miss Sallie.

Senior yearling sow, 3 entries—1, W. R. Holt, on Golden Queen; 2, W. R. Holt, on Frazer; 3, Scherzinger, on Sadie Logan.

Junior sow, 5 entries—1, McPherson & Son, on Logan's Pride; 2, J. P. Scherzinger, on Premier's Lass 5; 3, Holt, on Othello; 4, J. P. Scherzinger, on Premier's Lass 7; 5, J. P. Scherzinger, on Premier's Lass 9.

Senior sow pig, 9 entries—1, McPherson on Mac's Myrtle; 2, Mrs. W. R. Holt, on Sow by Big Bob; 3, McPherson, on Mac's Lady Logan 2d; 4, Mrs. W. R. Holt, on Sow by Big Bob; 5, W. R. Holt, on Sow by Big Bob.

Junior sow pigs, 8 entries—1, 2, 4, 5, Miller & Dietrich; 3, W. R. Holt.

Aged herd, 3 entries—1, Holt, herd headed by Longfellow's Premier; 2, McPherson & Son, herd headed by Prince Lee; 3, J. P. Scherzinger, herd headed by Nebraska Longfellow.

Breeder's young herd, 4 entries—1, Mrs. W. R. Holt; 2, McPherson & Son; 3, W. R. Holt; 4, J. P. Scherzinger.

Get of sire, 5 entries—1, McPherson & Son, on get of Gen. Logan; 2, Mrs. W. R. Holt, on get of Big Bob; 3, Miller & Dietrich, on get of Cook Robin 2d; 4, W. R. Holt, on get of Longfellow's Premier.

Produce of sow, 3 entries—1, Miller & Dietrich, on Menlow Prince Lee; 2, J. P. Scherzinger, on Silver Lady 2d; 3, W. R. Holt, on Laura's Imitator.

Champion boar—J. P. Scherzinger, on Nebraska Longfellow.

Champion boar bred by exhibitor—Miller & Dietrich, on Sir Robt. 1st.

Champion sow—W. R. Holt, on Tilde's Model.

Champion sow bred by exhibitor—Same.

DUROC-JERSEYS.

Judge—Prof. A. E. Burnett, Neb. Exp. Station, O. J. May, Bennett, Neb.17

W. Slidders, Bennett, Neb.10

S. L. Holley, Bennett, Neb.6

W. M. Retzlaff, Bennett, Neb.5

J. Stroth, DeWitt, Neb.12

A. L. Pangburn, Creighton, Neb.6

James Colleen, Creighton, Neb.8

J. R. Patrick, Creighton, Neb.7

Miner & Cross, Guide Rock, Neb.10

Jesse S. Golder, Scribner, Neb.8

Jacob Warrman, Cedar Bluffs, Neb.14

F. B. Nelson, Lindsay, Neb.12

Briggs Bros., Seward, Neb.9

E. K. Young & Son, Havelock, Neb.14

H. S. Allen, Russell, Iowa.8

F. W. Wittrock, Falls City, Neb.12

H. Smith & Son, Tobias, Neb.16

A. J. Russell, Crab Orchard, Neb.8

O. G. Smith & Son, Kearney, Neb.5

R. R. Steele, Wood River, Neb.10

E. V. Smead, Kearney, Neb.7

F. Backus, Oakland, Neb.1

Paul Grupe, Tecumseh, Neb.3

J. Bayne, Aurora, Neb.8

Arch Brown & Sons, Waterloo, Neb.18

E. Z. Russell, Blair, Neb.8

M. S. Moats, Randolph, Neb.8

Sam Stewart, Kennard, Neb.20

Carl Hansen, Herman, Neb.7

Whit Cameron, Herman, Neb.7

J. F. Peterson, Herman, Neb.4

Geo. A. Nordyke, Allen, Neb.1

F. Steinbeck, Notan, Neb.10

Geo. I. Clark, St. Edward, Neb.7

C. A. Warrick, Blair, Neb.7

Wm. Warnock, Alexandria, Neb.13

H. L. Roberts & Son, Paltan, Iowa.10

O. Cowles, Valley, Neb.11

Wm. Bornemeler, Elmwood, Neb.7

S. J. Tillman, Ragan, Neb.23

W. J. East, Clay Center, Neb.8

W. G. Unit, Seward, Neb.5

Geo. Davis & Son, Milford, Neb.5

Hoses Wilson, Blair, Neb.9

G. W. Colwell, Summerfield, Kans.8

H. W. Loudon & Sons, Clay Center, Neb.18

T. J. Current, Hildreth, Neb.12

Geo. Briggs & Son, Clay Center, Neb.23

C. McCarthy, Henderson, Neb.1

H. G. Warren, inland, Neb.5

Chas Van Patten, Sutton, Neb.1

Geo. Schmall, Sutton, Neb.5

A. M. Putman, Tecumseh, Neb.10

R. F. Miller, Tecumseh, Neb.15

Sexsmith & Strong, Greenfield, Iowa.10

Gifford & Vrtiska, Pawnee City, Neb.8

Chas. C. Keyt, Auburn, Neb.6

Smith Brown, Waterloo, Neb.8

Elmer J. Lamb, Tecumseh, Neb.3

A. R. Barnes, Petersburg, Neb.7

J. S. Beem, Bethany, Neb.25

A. W. Lamb, Albion, Neb.5

J. W. Abraham, Valley, Neb.11

B. R. Roberts & Harter, Hebron, Neb.15

Geo. Neel, Tobias, Neb.8

C. W. Buck, DeWitt, Neb.21

W. F. Waldo & Bros., DeWitt and Ottumwa, S. D.24

John Hammer, Greenwood, Neb.6

F. Aldritt, Friend, Neb.6

John M. Morrison, College View, Neb.12

A. Wilson, Bethany, Neb.6

W. A. Kilpatrick, Lincoln, Neb.16

H. C. McKelvie, Clay Center, Neb.5

Total.708

Aged boars, 15 entries—1, Sexsmith & Strong, on Choice Goods; 2, Gilbert Van Patten, on

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Davis' Chief; 3, Briggs & Son, on Ohio Chief 1 Am; 4, A. Wilson, on Lincoln Wonder; 5, Loudon & Son, on Jumbo, Jr.

Senior yearling boar, 9 entries—1, G. Van Patten, on Advancer 3d; 2, M. V. Putnam, on Put's Model; 3, Frank Bacchus, on Higgin's Model, Jr.; 4, H. S. Allen, on Crimson Hank; 5, W. H. Goble & Son, on Pomele.

Junior yearling boar, 36 entries—1, Steele & Smith, on Crimson Wonder; 2, E. Z. Russell, on Jumbo Critic, Jr.; 3, Unitt, on Unitt's Critic; 4, Briggs & McCarthy, on Mac's Improver; 5, Putnam & Minier, on Crimson Kid.

Senior boar pig, 62 entries—1, G. Van Patten, on pig by Echo Top; 2, G. Van Patten, on pig by Echo Top; 3, Stewart & Son, on pig by Chief Sensation; 4, E. J. Brown, on Gold Dust Knight; 5, S. Stewart & Son, on pig by Chief Sensation.

Junior boar pig, 71 entries—1, H. S. Allen & Sells, on pig by Crimson Wonder Again; 2, W. F. Waldo, on pig by Top Notcher; 3, Steele & Smith, on pig by Farmer Burns; 4, Geo. Caldwell, on pig by Billie K, Jr.; 5, W. F. Waldo, on pig by I Challenge You.

Aged sows, 18 entries—1, Briggs & Son, on Morton Rose; 2, H. S. Allen, on Crimson Lulu; 3, G. Van Patten, on Miss Morton 1st; 4, Putnam & Son, on Eva; 5, Easton Bros., on Nother's Lena.

Senior yearling sow, 20 entries—1, Stewart, on Lady Lightfoot; 2, Loudon & Son, on Cloverdale Beauty; 3, Easton Bros., on Aframer Queen; 4, S. Stewart & Son, on Cedar Queen 2d; 5, Briggs & Son, on Sow by Belle K Model.

Aged herd—1, Exsmith & Strong, herd headed by H. A. Choice Goods; 2, Briggs & Son, herd headed by Ohio Chief 1 Am; 3, Stewart & Sons, herd headed by Wrinkles Wonder; 4, Easton Bros., herd headed by Iowa Nother.

Breeders' young herd—1, Stewart & Sons; 2, H. S. Allen; 3, W. F. Waldo; 4, J. S. Reem. Get of sire—1, G. Van Patten, on Echo Top; 2, H. S. Allen, on Crimson Wonder Again; 3, Exsmith & Strong, on Valley Chief; 4, Stewart & Son, on Chief Sensation.

Produce of sow—1, Wernsman, out of Lady Chitwood 2d; 2, Roberts & Harter, out of Eva; 3, Steele & Smith, out of Garnett's Pride; 4, Stewart & Sons, out of Kruger Chief.

Senior sow pig, 24 entries—1, Stewart & Son, on Elberta; 2, H. S. Allen on Elberta Crimson Wonder; 3, Moats & Son, on Elberta Chimes Advance; 4, W. F. Waldo, on Elberta Belle's Chief; 5, Briggs & Son, on Sow by Morrison's Belle Top.

Junior sow pig, 54 entries—1, Wernsman, pig by Col. W; 2, Steele & Smith, pig by Farmer Burns; 3, Wernsman, pig by Col. W; 4, Keyt, pig by La Follette; 5, Current, pig by Watt's Model.

Champion boar, 6 entries—Steele & Smith, on Crimson Wonder 3d.

Champion boar bred by exhibitor—Sexsmith & Strong, on H. A.'s Choice Goods.

Champion sow—Briggs & Sons, on Morton Rose.

Champion sow bred by exhibitor—Briggs & Sons, Morton Rose.

CHESTER WHITES.

Judge—T. W. Miller, Menlo, Iowa.
Jacob Goehring, Seward, Neb. 5
I. E. Burton & Son, Friend, Neb. 25
L. W. Walmire, Raymond, Neb. 17
L. C. Reese, Prescott, Iowa. 25
J. W. Wharton, Uni Place, Neb. 3
Vanderslice Bros., Cheney, Neb. 25
John Cramer, Beatrice, Neb. 12
Wm. Gilmore & Son, Fairbury, Neb. 11
H. D. Bode, Exeter, Neb. 12

Total.135

Aged boar, 8 entries—1, L. C. Reese, on O. K. Mikado; 2, Gilmore & Son, on Blucher; 3, Gilmore & Son, on Jim; 4, R. E. Blodgett, on Flossy's Duke; 5, John Cramer, on Choice Goods.

Senior yearling boar, 1 entry—W. W. Walmire, on Keep On.

Junior yearling boar—1, Reese, on Perfection; 2, Reese, on Wonder; 3, Walmire, on Ed; 4, H. L. Bode, on by Nebraska Chief; 5, by Nebraska Chief.

Senior boar pig—1, L. C. Reese; 2, L. C. Reese; 3, Gilmore & Son; 4, L. C. Reese; 5, Vanderslice Bros.

Junior boar pig, 14 entries—1, Gilmore & Son, on Taft; 2, L. C. Reese, on By O K; 3, Gilmore & Son; 4, Burton & Son; 5, D. Bode.

Aged sow, 8 entries—1, L. C. Reese, on Bitter Girl; 2, L. C. Reese, on Ruby Mo. 2d; 3, W. W. Walmire, on O. K. Amy; 4, Vanderslice Bros., on Bess; 5, H. L. Bode, on Lady E.

Senior yearling sow, 7 entries—1, L. C. Reese, on Prescott Belle; 2, L. C. Reese, on Ruth; 3, W. W. Walmire, on Bessie 2d; 4, Walmire, on Bessie 3d.

Junior yearling sow, 7 entries—1, Walmire, on Bright Eyes; 2, Reese, on By O K Mikado; 3, Burton & Son, on By Teddy's R. Picture; 4, Vanderslice Bros., on Lily; 5, Reese, on By O K Mikado.

Senior sow pig, 9 entries—1, Reese, on Sir O K Mikado; 2, Reese, on Sir O K Mikado; 3, Reese, on Sir O K Mikado; 4, Walmire, on By Champion; 5, Bode, on By Nebraska Chief.

Junior sow pig, 15 entries—1, Cramer; 2, Bode; 3, Gilmore & Son; 4, Reese; 5, Burton & Son.

Aged herd, 5 entries—1, Reese, herd headed by O K Mikado; 2, Reese, herd headed by Perfection; 3, Walmire, herd headed by Keep On.

Breeders' young herd, 4 entries—1, Reese; 2, Reese; 3, Walmire; 4, Vanderslice Bros.

Get of sire, 6 entries—1, Reese; 2, Reese; 3, Reese; 4, Walmire.

Produce of sow, 5 entries—1, Gilmore & Son; 2, Reese; 3, Bode; 4, Walmire.

Champion boar—Reese, on O K Mikado.

Champion boar bred by exhibitor—Reese, on Perfection.

Champion sow—Reese, on Winnie Pearl.

Champion sow bred by exhibitor—Reese, on Winnie Pearl.

THE SHEEP EXHIBIT.

About 125 head of sheep, representing six different breeds, were shown. The exhibitors were: Geo. Allen, Lexington, Neb., with 15 Shropshires and 10 Southdowns; Wm. H. Allen, Lexington, Neb., 6 Shropshires and 6 Southdowns; M. and L. E. Bauer, Jameson, Mo., 20 Shropshires; Wm. L. Gove, Cheney, Neb., 12 Delaine Merinos; Damrow Bros., Lincoln, 12 Oxford; W. W. Walmire, Peculiar, Mo., 11 Oxford; Floyd McCann, Kennard, Neb., 4 Shropshires; Robt. Taylor, Abbott, Neb., 15 Rambouillet, 13 Hampshire, and 10 Leicestershires.

The following awards were made on Oxfords and Shropshires:

OXFORDS.

Judge—David Broadwood, Abbott, Neb.
Yearling Ram—1, Walmire; 2, Damrow Bros.
Ram lamb—1, Walmire; 2, Damrow Bros.
Aged ewe—1, Damrow Bros.; 2, Walmire.
Yearling ewe—1, Damrow Bros.; 2, Walmire.
Ewe lamb—1, Damrow Bros.; 2, Walmire.
Pen of lambs bred by exhibitor—1, Damrow Bros.; 2, Walmire.
Flock (ram and 4 ewes)—1, Walmire; 2, Damrow Bros.
Champion ram—Damrow Bros.
Champion ewe—Damrow Bros.

SHROPSHIRE.

Judge—David Broadwood, Abbott, Neb.
Aged rams—1, Allen; 2, Wm. Allen.
Yearling ram—1, Bauer; 2, Geo. Allen.
Ram lamb—1, Bauer; 2, Geo. Allen.
Aged ewe—1, Bauer; 2, Geo. Allen.
Yearling ewe—1, Geo. Allen; 2, Bauer.
Ewe lamb—1, Bauer; 2, Geo. Allen.
Pen (4 lambs)—1, Bauer; 2, Geo. Allen.
Flock (ram and ewes)—1, Bauer; 2, Geo. Allen.
Champion ram—Bauer.
Champion ewe—Geo. Allen.

SOUTHDOWNS.

In this class, Geo. Allen won six firsts, two seconds, and two championships; Wm. Allen winning two firsts and four second prizes.

Field Notes

LIVE STOCK REPRESENTATIVES.

L. K. Lewis.....Kansas and Oklahoma
A. L. Hutchings.....Kansas and Nebraska
Geo. E. Cole.....Missouri and Iowa

While the past year has been a poor one for association work, the American Aberdeen-Angus Association is going right along under the direction of Chas. Gray, secretary. So far, this year, the association has enrolled 180 members, which is about 40 more than has been enrolled during any entire year in the past. Volume 17 of the Aberdeen-Angus herd book, an issue of 1,000 copies, is now ready for distribution. Volume 17 contains entries from 100,501 to 112,500.

Now is the time to get rid of the gophers in your alfalfa and other fields. Read what the members of the Shawnee Alfalfa Club had to say about Gopher Death in the reports of their meetings. "It is the handiest, surest, and cheapest gopher destroyer that has yet been discovered," is the way one large alfalfa-grower states the case. It is manufactured by the Fort Dodge Chemical Co., Fort Dodge, Iowa, of whom it may be obtained. Please mention THE KANSAS FARMER.

Jones's National School of Auctioneering and Oratory has just closed the most successful summer term it has ever enjoyed. The classes were composed of students from nearly all of the middle States and from as far east as New Hampshire. That Colonel Jones is doing excellent work in his school is shown by the liberal patronage he receives and the quality of the work he does. A considerable number of young men from Kansas have attended this school and all praise it highly. Among the graduates of this school who have attained to conspicuous success is Col. Jas. T. McCulloch of Clay Center, who is one of the ablest and most capable live-stock auctioneers in the State. If you want first class service in conducting your sale secure Colonel McCulloch and you will not only get it but you will also receive a very excellent idea of the quality to be found among the graduates of Jones's National School of Auctioneering and Oratory, 1215 Washington Boulevard, Chicago, Ill.

Last Call for the Guthrie Ranch Berkshire Dispersal Sale.

This is the last call for the Guthrie Ranch Berkshire dispersal sale, which will be held at the ranch a few miles from Strong City, Kans., Friday, September 18, as advertised in THE KANSAS FARMER.

In many respects this is one of the greatest consignments of Berkshires ever offered in the West, for it will comprise the entire foundation herd, including many valuable animals that the Guthries have absolutely refused to price before.

Manager T. F. Guthrie has been years accumulating this splendid lot of Berkshires which will now be sold to the highest bidder without reserve to settle the estate of the late W. W. Guthrie.

Guthrie Ranch Berkshires represents without doubt more of the much prized blood of Black Robin Hood than any other herd in the country, and this dispersal sale will afford breeders an opportunity to secure foundation stock with valuable blood lines and splendid individuality such as probably will not occur again for many years.

This offering will include the herd boars, brood sows, sows with pigs by side, brood sows, open gilts, and spring pigs. These will be well fitted and in the pink of condition and in the best possible condition to do buyers good.

Mr. Guthrie extends a cordial invitation to his brother breeders and to all who may be interested in the breed, to be his guests on sale day. He requests that prospective buyers come the evening before, and teams will be provided to carry them to the ranch the morning of the sale, affording all an opportunity to thoroughly inspect the offering.

Look up his advertisement in THE KANSAS FARMER and write Mr. Guthrie for a catalogue and arrange to be his guest Friday, September 12.

Becker's Poland-Chinas.

On another page of this issue J. H. Becker, the well known breeder of Poland-Chinas of Newton, Kans., is starting an advertisement in which he is offering for sale at attractive prices some choice fall gilts, a few bred sows and some extra good, well grown, spring boars and gilts.

Mr. Becker is one of the well known and up-to-date breeders in that part of the State and has established a reputation not only for the quality of his stock, but for his square dealing and reasonable prices. He is a splendid judge of hogs and in building his herd he has sought to combine the requisites of size, finish, and easy feeding quali-

ties, and on inspecting his herd the writer found that in these respects his hogs are much above the average.

The chief herd boars in service are Trouble Maker 2d, by Trouble Maker a full brother to Meddler, the World's Fair champion, and Dandy Rex, by Prince Proud he by Proud Perfection. Trouble Maker 2d has the size, finish, and fleshing qualities characteristic of this noted family which he transmits to his get in a marked degree. A large part of the spring pigs are by him, and they are showing up strong, with extra good heads and ears, strong backs, well sprung ribs, good bone and feet, as well as for general thrift and vigor.

Dandy Rex has made a record not only as a sire but as a show hog. He won first in class at the Kansas and Colorado State Fairs in 1905 and 1906 and has produced pigs, if properly fitted, that are good enough to go out and win in good company.

Mr. Becker might be induced to part with Dandy Rex because he is now too closely related to the herd. He is just in his breeding prime and is fit to head, or do service in any herd.

The herd sows are nearly all of the large type and are strong in scale, bone and finish and extra prolific qualities, and are by such sires as Emperor Chief, C. M. Corwin, Acme Perfection, and Big Duke.

Mr. Becker does not keep a large herd, but it is very select, and all of his breeding stock is well fed, well grown and nothing but the tops are sold for breeding purposes.

In ordering from Mr. Becker you will get the best individuals and blood lines at reasonable prices, and you can rely on his sending you just what you order, so send in your order early and get your pick of the best. In writing please mention THE KANSAS FARMER.

C. C. Roup's Tamworths.

One of the attractive features of the hog show at the Iowa State Fair, at Des Moines two weeks ago, was the Tamworth hog exhibit which attracted the attention of the hog-raisers who have been watching the development of this bacon breed. The demand for the bacon hog is steadily and rapidly increasing and will continue to do so for two reasons, one because bacon is the highest price pork product on the market, and second is because the Tamworth will make as many pounds in as short a time on as small amount of feed as any other breed and will sire more pigs than any lard breed. The Tamworth show at this fair was not large but the quality was the best we have ever seen at this place.

One of the exhibitors that made this a great show of Tamworths and won a number of the best prizes was C. C. Roup, Iowa City, Iowa. Mr. Roup's hogs were typical Tamworths of the best bacon type; long, deep, smooth, and well grown for their ages. Mr. Roup said the sales were coming along good and he had a choice lot of pigs for the season's trade. Parties wishing the bacon hog could not do better than write for prices where you will get good stock and just treatment. Below is a list of Mr. Roup's winnings at the last Iowa State Fair:

Second aged boar, second junior yearling boar, first and second boar pig under 1 year, second boar pig under 6 months, first and fifth aged sow, first junior yearling sow, first and second sow pig under 1 year, first and third sow pig under 6 months, third aged herd, first and fourth young herd, first and fourth herd bred by exhibitor, first on get of boar, second on produce of sow, champion sow any age, and champion sow bred by exhibitor.

C. P. Brown's Poland-Chinas.

Perhaps no part of Kansas is noted for the good hogs it produces better than the East Central part. One of the best Poland-China herds in this part of the State is owned by C. P. Brown, Whiting, Jackson, County, Kansas.

Mr. Brown has been breeding Poland-Chinas for a number of years and knows how to feed and grow pigs to make the best breeders.

The brood sows in this herd are typical Poland-China with lots of quality and finish and bred in the purple. One of the good sows is Perfect Beauty 2d, sired by that great show and breeding boar Empire Chief. This hog won champion prizes at both National and Kansas State Fairs. The dam of Perfect Beauty 2d was Perfect Beauty, running direct to the old Darkness sow of such Poland-China fame. This sow has a nice litter of nine pigs sired by Col. Mills, a son of that great hog, Chief Perfection 2d.

Another good brood sow is Royal's Maid, a Black U. S. and Corrector bred sow. This sow has a nice litter sired by Indiana, the champion hog of the East winning champion prize at both Illinois and Ohio State Fair. He is not only a great prize winner but he is a son and grandson of these two great hogs L. and W. Perfection and Chief Perfection 2d. Another good one that has a fall and spring litter is Viola Perfection 2d sired by Black Perfection, dam by Old Perfection. The boars at the head of this herd is On The Line sired by On and On, he by Keep On, both of these were champion show hogs. The dam of On the Line is Chief Fancy Lady sired by Chief Perfection

Thoroughbred Rambouillet Rams



For sale, 200 head yearling Rams, large, vigorous healthy, fellows, averaging, when weaned, 79 lbs. at 4 months old. Not the pampered, early born, grain fed, worm infested sort, but born and

Grown on Kansas Blue Stem Pastures and Alfalfa Hay.

The long stapled, heavy shearing, well covered kind. They are the get of the top pick of 400 head of a flock of 1,500 of the finest and best bred ewes in the United States and for which we paid a large price. Will sell singly or all together at a price lower than the lowest.

For further information and prices, write J. W. Treutman & Sons, Comiskey, Lyon Co., Kans.

Sept. 21-26

ST. JOSEPH, MO.

Most Daring Feats of Bare-back Riding—Wall Scaling—Roman Standing and Hurdle Races—Artillery—Competitive Drills—Air Ship and Flying Machine Races at the

LARGEST MILITARY TOURNAMENT

EVER HELD IN THE UNITED STATES 5,000 U. S. Troops, 2,500 Cavalry Horses, 1,000 Artillery Horses, War Balloons, Air Ships and Flying Machines.

Low rates on all Railroads. A great educational opportunity.

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Any style of this greatest talking machine in the world will be sent to you on trial, freight prepaid. Also 12 records. Hear it play its music—sing its songs. Then if you are satisfied, pay us a trifle each month. This concern, with its combined capital of \$7,000,000, is the largest of its kind in the world. We have 450,000 customers. See what we can do on a Graphophone. Write a postal today for Catalog No. 30.

Spiegel, May, Stern Co., 1279 35th Street, Chicago

AUTO-FEDAN HAY PRESS

All steel and iron, 3 strokes to round; 2 men can run it. Record, 3 tons in 1 hour. A feed each stroke. Smooth bales; easy draft. Free trial. Satisfaction guaranteed. Ask for Catalog 64.

Auto-Fedan Hay Press Co., 1821 W. 12th St., Kansas City, Mo.

A WATER SYSTEM

for your home at little cost. Water for bath, for kitchen, laundry, barn and stock. A dependable fire protection. Pressure up to 150 pounds. Write JOHNSTON MFG. CO., No. 9 RIDGE BLOCK, KANSAS CITY, MO.

\$10.00 Sweep Feed Grinder

We manufacture all sizes and styles. It will pay you to investigate. Write for catalogue and price list.

CURRIE WIND MILL CO.

Seventh St., Topeka, Kansas

Steel Wheels

will make your old team wagon as good as new. Save money because they never need repairs. Write for big free book telling all about them and how they pay. Empire Mfg. Co., Box 136, Quincy, Ill.

Do You Want Money?

Farm News wants a reliable person in each neighborhood to act as Local Circulation Manager and represent an attractive, new proposition. Just now ready for the market. A permanent position with good pay for time given is assured. The work is easy and pleasant and may be the source of a regular yearly income. The boys and girls can do the work while going to school; the country school teacher can add to her salary; the housewife can make pin-money; energetic men—young or old—can make just as much as they have time for.

We pay liberally for this work in cash. We have a special, new plan. Write a postal at once for particulars and state what territory you can cover. Address

FARM NEWS,

Circulation Mgr., Springfield, O.

THE ROYAL HOTEL, Lincoln, Neb

Modern, fire proof, only American Plan Hotel in the city. Centrally located, 15th and O Sts.

2d. This hog is assisted by Col. Mills, sired by Chief Perfection 2d dam by Old Black U. S. Every Poland-China breeder knows that this breeding is as good as can be found in the breed. These hogs are not only bred right but they are good individuals and are siring pigs that have size, quality, finish, and Poland-China type and conformation. Parties wishing fall boars or spring pigs should write Mr. Brown for prices. Notice his advertisement elsewhere in THE KANSAS FARMER.

Jones' College View Polands.

W. A. Jones and Son, of Ottawa, Kans., proprietors of College View herd of Polands, which in many respects is one of the best in the State, have on hands, and are offering at reasonable prices, some first class yearling boars any of which are fit to do service in good herds. W. A. Jones and Son breed the large type of Poland-Chinas and have established a National reputation through some of the animals bred by them. Mr. Jones is the breeder of the famous Chief Tecumseh 2d and other noted swine, and has always succeeded in producing in his hogs not only plenty of scale, but lots of finish and natural feeding and fleshing qualities. We know of no better place to go to buy a first class herd boar than right here. The kind that Jones and Son have will not only increase the size but will improve the feeding and fleshing qualities of your hogs.

These boars which they are offering are strong, vigorous fellows of just the right age and in the very best condition to do hard service and give the best results. Considering their quality they are being priced reasonable, and will not last long.

Jones and Son also have some extra, well grown, toppy, spring boars and a few choice gilts. If you want some of the best of these it will be well to send in your order soon, for they won't last long. Jones and Son's farm adjoins Ottawa, and if prospective buyers will telephone them they will be called for and returned to the depot.

Leyhe & Purcell's Coming Poland Sale.

Leyhe & Purcell, of Marshall, Mo., are getting things in readiness for their Poland-China sale this fall, which is to be held on November 19.

These gentlemen were liberal buyers at many of the very best Poland-China sales for the past few years and are prepared to offer a bunch of hogs that are good enough to interest the good breeders of this character of swine.

In their purchases they were careful to get such animals that were qualified in breeding and individual merit to meet the advanced and increasing demand for the best in Poland-Chinas. These gentlemen are not only breeders of hogs but business men who have made a success of life and are absolutely reliable in every particular. Their personal guarantee goes with every animal sold from their farms.

Keep their sale date in mind and arrange to be on hand at that time. We will have more to say for them as the time advances.

Frank Drybread's Durocs.

Frank Drybread, proprietor of Maple Grove herd of Durocs, at Elk City, Kans., writes that he attended the Wilson County Fair and was awarded first prize and second sweepstakes on his splendid herd boar, Crimson Prince 69527. We know that Crimson Prince is entitled to these honors, for he is one of the best boars of his age that we have seen. He is a son of that king of the breed, the great Ohio Chief, and is remarkable for his scale and quality, weighing 700 pounds in his senior yearling form.

Mr. Drybread is a member of the Southeast Kansas Sale Circuit, together with Samuel Drybread, J. J. Baker, and O. W. Simerley, and will hold a public sale November 12.

His offering will consist largely of extra good well grown spring pigs of early farrow, out of good dams, and by Crimson Prince and other good sires.

Mr. Drybread writes that they are doing nicely and will be in splendid shape on sale day.

A. K. Sells' Sale of Registered Poland-Chinas September 24.

A. K. Sell, the well known breeder of Poland-Chinas and proprietor of Fairview Stock Farm, at Fredonia, Kans., is advertising his fall sale on another page of this issue. This sale will be held at Fairview Stock Farm, three miles from Fredonia, Thursday, September 24, and we invite the careful attention of our readers who may be interested to the fine line of stuff Mr. Sell is advertising. Some of the most popular and up-to-date blood lines are represented in this consignment which will consist of twenty choice, proven sows most of them bred; eight fancy bred fall yearling gilts; ten extra good fall gilts sold open; six fall and winter boars that are good ones, and fifty early spring pigs, the tops of his entire crop.

Among the proven sows are such choice individuals as Corrector Girl, Sis Radium, and Truth, all granddaughters of the great Corrector 2d. Then there is Vinita, Mischief Miss, and Meddler Girl, granddaughter of Meddler the World's Fair champion. Thelma L. will be number one in the catalogue. She is a granddaughter of Chief Perfection 2d and is out of a Proud Corrector dam. There are three by Perfect Chief, and there are other good ones by such sires as Sunshine Mischief by Luster Sunshine; Prince Perfection by Ware's Perfection, and Perfection M. 2d. The most of these will be safe in service, to Sells' Spell, an excellent breeding son of the great Spellbinder, his dam is Imps Girl by Impudence.

The eighteen yearling gilts that will be included are a nice, smooth bunch with lots of quality. They are out of good prolific dams and are sired largely by Correct Sunshine 101835, the chief herd boar and a son of Luster Sunshine. Eight of these will be bred to Sell's Spell for fall litters.

In the boar division there are a num-

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ber fit to do service in good herds. These are all winter and fall yearlings and are a growthy, toppy lot. Among these is one by Spellbinder, one by Correct Sunshine, one by Meddler's Medal, and three by Minstrel, he by Meddler 2d.

The fifty spring pigs that will be offered will be the tops of this year's entire crop. They are a nice, smooth, growthy lot with fancy head and ears, good bone and feet, strong thick-fleshed backs, and are reasonably well grown. They will be sold in lots to suit purchasers, and will be a decided attraction at the sale, as well as affording purchasers an opportunity to buy good young stuff at a reasonable figure and grow them out themselves. These pigs are all out of good, smooth, prolific dams and are by Correct Sunshine, Meddler's Medal, Imp's Likeness, and On's Favorite by On and On. Everything will be well fitted and in the best possible condition to do buyers good.

This will be an opportunity to buy good useful stuff at reasonable prices and although feed is high, hogs will be good property at present and future market prices.

Don't forget the time and place, Thursday, September 24 at Fredonia, Kans. Look up the advertisement on another page and write Mr. Sell for a catalogue.

Coppins' and Worley's Durocs.

Coppins and Worley of Potwin, Kans., proprietors of Coppincrest Four Mile herd of Durocs were exhibitors at the Butler County Fair, where they won practically all of the principal awards. Their winnings were as follows:

First on aged boar, first on senior yearling boar, first and second on senior boar pigs, first and second on aged sows, first and second on senior yearling sows, first on senior sow pig and second on junior sow pig. Their prize-winning boars were Chief Justice by Model Chief, and Coppins' Notch Higher, a grandson of Kant Be Beat.

Their exhibit attracted much attention and favorable comment, and was a credit in every way to these enterprising breeders.

Coppins and Worley have one of the largest and best herds of Durocs in that part of the State, comprising some of the most popular and up-to-date blood lines, and are prepared to furnish breeders and farmers first class breeding stock at reasonable prices.

Camp Life of Soldiers.

Practically everyone knows that the United States Government maintains a standing army of nominally 100,000 men and under stress of emergency can muster ten times that many more on short notice. But there are comparatively few who know anything of the life, the daily routine, of the regular soldier either in time of peace or in time of war.

Within recent years it has become a part of the war department to assemble regular troops at different war stations once a year for the purpose of indulging

in mimic war. Still later the experiment of ordering large detachments, including every branch of the service, to assemble at favorable points for the purpose of public exhibitions, showing the daily life of the soldier in time of peace, the drills, marches, and training that fit him for the activity of war on short notice.

The first of these tournaments was held in St. Joseph, Mo., in September last year. So eminently satisfactory was this that a second and larger military carnival was ordered again this fall and it is considered not at all unlikely that the military tournament will become an annual feature with the war department.

The variation from the monotony of life in forts has a salutary effect upon the men and the prizes hung up afford a stimulus to them to strive for excellence in the various feats which are called for from them.

The coming tournament will bring together 5,000 men who will be in camp about a mile from the scene of the carnival performances and the camp life of the regular soldier, will afford one of the interesting features of the week of September 21-26 in St. Joseph.

A Paying Farm Proposition.

One of the best-paying farm propositions an ambitious man can take hold of is cattle-feeding either for market or for milk.

Now that agricultural science has given us an insight into the actual principles which lie at the foundation of the business, it is a mere matter of apply them in daily practice to get a good profit for ourselves. Feeding cornmeal, or any combination of feeds, won't necessarily make beef or produce milk. Your steer or cow has got to digest and use its ration or the manure heap will be the richer and you the poorer. In other words, the simple act of feeding doesn't always produce results.

Here is where farm science comes to the rescue. The new idea of feeding tells us first of all, that the steer or cow is like a machine, and that the feed each gets is raw material which we wish to turn into flesh, fat, or milk. Now if your steer or cow, as machines, don't work properly, a greater or less percentage of your feed is bound to be wasted. That is, animal digestion must be absolutely right if the greatest grain is to be made.

But it's impossible to keep the stomach and intestines working right when they are constantly forced beyond natural limitations and is what every feeder of live stock is doing when feeding for market or for milk.

From which it follows that anything capable of continuing the digestive function in healthy activity during the weeks or months in which the fattening process is going on, will solve the problem to the feeder's satisfaction.

Experiment has proved conclusively that a preparation containing true tonic elements, blood builders and nitrates

(which are well known as cleansing the system) is an actual necessity in the cattle business. In fact the greatest success is impossible without it. Just as well expect to preserve your own health and stuff with rich food for a period of months as to expect your stall-fed steer or cow to do so.

The "food tonic" idea has come to stay in the cattle-feeding business—success depends on it. Your animals must be "toned up" and strengthened by these mild elements which great medical writers, like Professors Winslow, Quitman, and Finley Dun, recommend as beneficial. Give it to the horses; it will make them fitter and more salable. Lambs grow faster, swine fat quicker—indeed all live stock profit depends upon this tonic.

Each Excels Predecessor.

Judging by information from intending exhibitors received at the office of Manager Irwin, the Interstate Live Stock and Horse show to be held in St. Joseph, Mo., the week of September 21-26 bids fair to take second place in the list of big live stock shows this fall.

It is admitted by exhibitors who make the circuit of shows and fairs each year that no other one of the recognized live stock shows has as complete, convenient and commodious grounds for holding a show of such magnitude. Exhibitors who have been here at previous shows know that grounds and buildings are not only specially adapted for the convenience, health and comfort of exhibition stock, but they also know that from the opening of the show until its close, extra strenuous efforts are made in behalf of the exhibitor. At the finish of the show he gets what is coming to him and goes home feeling that the Interstate management has done its part well in the determining to make each succeeding show a bigger success than its predecessor. It is this that has made breeders and feeders of live stock who have been here once want to come again; and it is this that is bringing out inquiries for entry blanks that already guarantee the greatest collection of high class live stock for the Interstate Live Stock and Horse show in St. Joseph next month.

The Harvey County Fair.

One of the handsomest premium lists that has been issued this year by any county fair in Kansas comes from Harvey County. Liberal premiums are offered for all of the prominent breeds of live stock and they are based on a liberal classification. From the first page of this neatly prepared premium list to its back cover it indicates progress and Secretary L. G. Harlan and his coworkers are to be congratulated on their work. It is to be hoped that the day is not far distant when every county in Kansas will hold a fair such as is promised for Newton on September 29 to October 3.

Agriculture

Will Dynamite Loosen the Soil?

A good deal of my farm is underlaid with clay rock or slate under clay and some of it is very close to the surface. I have read about dynamiting such land. In using dynamite to loosen the ground, how deep should the holes be? How much dynamite should be used per charge, and should it be tamped in? How far should holes be apart each way? Would such ground raise alfalfa after such treatment, and what would be the best crop to precede alfalfa to get nitrogen germs in the ground?

C. M. STEBBINS.

Bourbon County.

I have not experimented in using dynamite to loosen the subsoil. Some use has been made for this purpose especially in parts of Western Kansas. As I have been informed, the holes for blasting are not sunk very deep; not over three or four feet. I have never heard of dynamiting to loosen the underlying rock and slate. The soils which have been dynamited have usually been underlaid with a hardpan subsoil and it is claimed that the dynamiting loosens up the soil, making it more pervious to water, thus increasing the fertility and productiveness of the soil.

If you wish to try dynamiting for loosening the land which you describe you will have to make a few experiments. Try placing the charges at different depths; experiment on the amount of dynamite to use, and by inspecting the work after the discharge you may determine about how far apart the charges will have to be placed in order to accomplish the desired results. After the caps and fuse are attached to the stick of dynamite the hole should be filled with sand or dry soil and tamped lightly.

The whole undertaking will be an experiment and I can not prophesy results. Such ground may grow alfalfa after it has been put into condition. It would at first probably be too loose to start alfalfa well. Usually alfalfa should be sown in the fall in your section of the State, and the preceding crop may be wheat or oats or some other crop which may be removed early in the fall so that a proper seed-bed may be prepared. Cow-peas are a good crop with which to precede the sowing of alfalfa; also millet. On land such as you describe, this legume would be a good one.

Regarding alfalfa bacteria these may be supplied by securing soil from an old alfalfa field and distributing a small quantity of it over the field which you intend to sow, mixing it with the soil of the field by harrowing or disking. Three or four hundred pounds per acre will be sufficient to start the inoculation. I have mailed you circular letter giving further information on this subject. Have mailed you Circular 10 on "Alfalfa Seed and Seeding."

Should be pleased to have you keep me informed regarding your success with dynamiting. In fact, we may be able to cooperate with you in this work.

A. M. TENEYCK.

Wheat for Dickinson County—Timothy Hay for Horses.

1. What kind of wheat could you recommend as best for Dickinson County, Kansas? Do you sell the seed, and at what price? Also, how is it shipped to the buyer?

2. Is timothy hay best for horses, next to prairie hay? Is there any reason why it should not do well in Dickinson County? Do you sell the seed, and if so, at what price?

I thought of sowing timothy with wheat this fall ahead of the disk drill. Is this a good way of putting in the seed? How much seed should be sown to the acre?

ABRAHAM BEECHBILL, JR.

Dickinson County.

I have mailed you Circular 11, giving information regarding the seed-wheat which we are offering for sale. The hard red winter wheat of the Tur-

key or Russian type, such as the Kharkof, Malakoff, Turkey Red, and Crimean are best adapted for growing in Dickinson County. We have for sale a limited amount of the Kharkof and one variety of Turkey Red. Can refer you to growers of these several varieties. See enclosed list.

Timothy is the standard hay crop of the Middle and Eastern States and perhaps ranks next to good prairie hay for feeding horses. Timothy has produced very well at this station during the last five years and would give good crops in Dickinson County on bottom-land or well watered upland. We have no seed for sale but seed may be secured from seedsmen.

I would advise to sow clover with timothy, either the Mammoth Red or Alsike, the Alsike being preferred on the wetter land. The timothy may be sown in the fall with wheat as you have stated, in which case it will be advisable to give a light seeding of wheat, say about three pecks per acre, and sow rather early, not later than the middle of September. The clover should be sown in the spring and in case the timothy is sown in the fall the clover may be sown very early in the spring on the wheat, depending upon the natural conditions to cover the seed. Or, it may be advisable to sow both the timothy and clover in the spring on the wheat, very early, giving a light harrowing to cover the seed. Sow about 10 to 12 pounds of timothy with four pounds of Alsike or 6 pounds of Mammoth Red clover per acre.

Usually I would recommend other grass than timothy for your section of the State. I prefer the Bromus inermis, especially on upland, sowing it either with clover or alfalfa; preferably with alfalfa. Plant 12 to 14 pounds of Bromus inermis with 4 or 5 pounds of common red clover or 6 or 8 pounds of alfalfa seed per acre. This combination will make good meadow and excellent pasture. The Bromus inermis and alfalfa combination has proven to be the best, giving larger yields than other grasses or combinations of grasses and legumes and being more permanent and productive. When the grass and alfalfa are well set both seem to hold their own about equally well. The combination meadow makes excellent hay the first cutting and may be used either for hay or pasture after the first cutting; preferably for pasture, since Bromus inermis heads only once during the season. However, alfalfa will make several crops the same as it does when it is sown alone, and there will always be some undergrowth of grass. If the clover is sown with the Bromus inermis, I prefer to sow in the spring on a clean bed without a nurse crop. The grass with alfalfa may be sown in the fall with good success.

I am mailing you copy of Circular 10, giving information regarding "The Seeding of Alfalfa." Also circular letter on "Seeding Bromus Inermis."

A. M. TENEYCK.

Bromus Inermis.

I have my ground prepared to sow to grass and have decided to sow Bromus inermis. When would you advise me to sow it? I plowed the ground and have harrowed it twice and it is well pulverized and in fine shape, has a black soil with a hardpan subsoil. Could I pasture it next year without injuring it? I am sowing it for pasture. Give me all the particulars about this grass, and in your experience as to whether it will pay. My ground is level, no wash in it. I live in the southeast corner of Ottawa County. English blue-grass has not proven to be a success where it was sown for pasture on adjoining land.

OTTAWA COUNTY FARMER.

You may sow the Bromus inermis any time now up until September 15. I would not, as a rule, recommend to sow later than this date in your section of the State. Perhaps you should work the ground more in order to make the seed-bed more firm. However, rains may have packed and firmed the soil sufficiently.

It would not be advisable to pasture this new seeding of Bromus inermis

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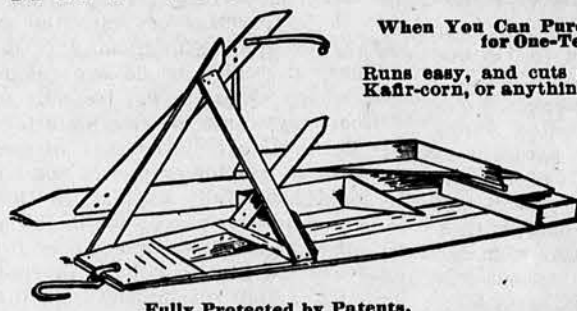
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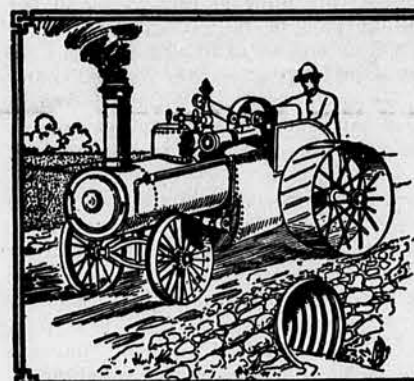
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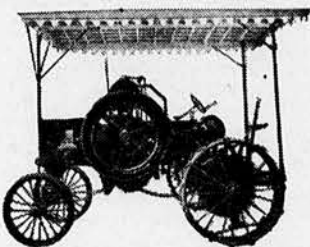
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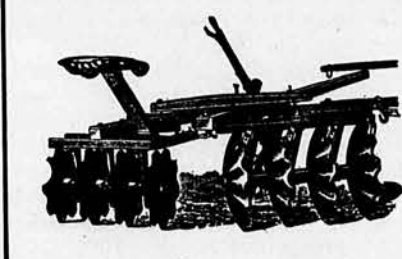
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next season, at least not during the early part of the year. You might pasture the aftermath in the late summer or early fall after having cut the first growth for hay earlier in the season. *Bromus inermis* should give good results in your section of the State, even better than at this station. I would advise, however, that you sow a little alfalfa with it for pasture, say about 12 to 15 pounds of *Bromus inermis* and 6 pounds of alfalfa seed per acre. The combination pasture appears to be a practically safe one for cattle and is more productive and permanent than the *Bromus inermis* alone. For further information I have mailed you circular letter on "Seeding *Bromus inermis*," also Circular 10 on "Seeding Alfalfa." A. M. TENEYCK.

Spelt.

EDITOR KANSAS FARMER:—In looking over your paper I see nothing about spelt. I am a spelt-grower and am now feeding it to my hogs and horses. I find it a good feed and would like to hear from some one who has grown it and the best way to grow the most per acre. A. W. JENKINS.

Miami County.

An Echo from the Conference of Governors.

A. H. BREEMAN.

What makes the difference between the Desert of Sahara and the United States? Before answering this conundrum not found in the almanacs, I will say that I assume the United States to be as near an earthly paradise as this world exhibits. Think of it as the Fourth of July orator puts it and add all the frills which he had no time to mention: Our interesting climate; our majestic rivers; our grand and mysterious forests teeming with life; our deposits of mineral riches; our broad and fertile plains turning swiftly under the hand of man from buffalo grass or sage brush to waving fields of corn and alfalfa; our song birds and the whistle of quail in the hedge-row. This picture of America is very alluring. It is unlike the terrible desolation of Sahara. What constitutes the difference? The answer is "Natural resources."

The Nation's birthday has recently passed, and those of us not too busy escaping the din of heathenish fire-crackers, remember well the ringing words which tickled our vanity. The heft of the argument was that, "We are the greatest people in the world." Many of us believe it. We have done such wonderful things of which we may well be proud. Here are some figures worth inspection:

	World.	United States.	Pr. Ct. U. S.
Area, square miles.	50,656,000	3,026,000	5.9
Population.	1,650,000,000	86,000,000	5.2
Corn, bushels.	3,285,000,000	2,592,320,000	78.8
Wheat, bushels.	3,062,000,000	634,087,000	20.7
Tobacco, pounds.	2,210,000,000	698,000,000	31.1
Cotton, bales.	18,578,000	13,346,000	71.3
Pig iron, tons.	61,000,000	25,780,000	42.2
Petroleum, barrels.	1,597,000,000	918,000,000	57.5
Copper, pounds.	260,000,000	162,600,000	62.5
Gold, value.	\$404,000,000	\$89,620,000	22.1
Silver, value.	106,835,000	37,914,000	35.5
Coal, tons.	1,220,000,000	455,000,000	37.3
Sulfur, tons.	832,644	298,859	35.8
Phosphate rock, tons.	3,632,000	1,978,000	54.4
Cotton, spindles.	122,880,000	26,000,000	21.0
Railroad mileage.	570,000	225,000	39.5

We are a Nation of big things. We have shown the world some astounding stunts in organization, invention, manufactures, agriculture, and citizen soldiery. But the American people have also shown a capacity for monumental foolishness. As wasters, we exceed the speed limit. No Nation in history ever used up with swifter pace and greater unwisdom the natural resources of its domain. It is not merely that we have rapidly depleted our forests until lumber is a luxury and floods are followed by drought; it has been the work of a favored few who have grown over-rich. It is not alone that we begin to see the bottom of our coal measures and iron mines, but these marvellous deposits have swollen the coffers of other professional exploiters and the dear people, have made no sign.

Perhaps the most significant and important act of President Roosevelt's administration was the White House conference of governors in May. The object of the conference was to pro-

mote policies and movements for the conservation of the natural resources of the country. Something has been done already by setting aside forest reserves, and it will be a big task to rehabilitate forest areas already depleted. Plans to save the forests, build waterways, control mines, start irrigation projects, and such other large schemes which permit of direct governmental regulation, are of less concern than that most important problem of all—the conservation of soil fertility. Among other distinguished persons at the conference, James J. Hill delivered a stirring address upon this phase of national wastefulness. One difficulty lies in the fact that farm areas being comparatively small and held by many individuals, each fails to realize the importance of doing his share in the great movement for saving the soil for the next generation.

The conference gave its attention mainly to those National resources which are vast and spectacular. Immense waterways, irrigation schemes, great National parks, re-foresting burnt-over districts, all such are among the big things. No definite plan was proposed to save our soil from barrenness. Yet it is the biggest problem of all. The solution is not uncertain. The average farmer is apt to be careless of what the soil means to him. Superficially it is a medium in which seeds are planted and where crops grow. He may not deliberately waste the raw material of his fields. He believes that in some mysterious way his crops will continue to yield bountifully as long as there is land. He sees no change in the appearance of his fields, and virgin richness has led him to believe in "inexhaustible" and "permanent" fertility.

It should be understood that mere bulk of soil does not make fertility, but the presence of plant food in the soil as part of it. A soil may be 30 per cent coarse sand and 50 per cent fine sand and yet appear fertile. Sand is not plant food. If plants thrive in such soil, they draw their sustenance from the fine particles of silt, humus, or such portion as will dissolve in water. Those portions of the soil which enable plants to grow are absorbed by crops. They are sold off the farm as hay, grain, live stock, etc., and every pound of farm products thus disposed of takes away from the soil just that much of its original store of "natural resource" or plant-making substance.

The elements which give us most concern as to future supply are phosphorus and potash. Every plant in the world needs large amounts of each

basis. If you wait until you have lost your health it is a hundredfold harder to recover it than if you care for your health while you have it.

If fire consumes your uninsured factory you have an uphill job to get started again, yet with the factory in full blast, a fund could be set aside from the earnings to cover possible loss. With your farm well managed and in good tilth, the profits therefrom will not only supply your family needs, but maintain the soil itself. When your soil is reduced to unprofitable yields, where is the insurance fund for further fertility coming from? To constantly take away and return nothing to the soil is the old story of killing the goose which daily laid a golden egg.

The farmer is not properly a miner; he is a manufacturer. He converts raw materials into finished products. Wise is he if he keeps his supply of raw material above the safety mark.

There is a good deal of talk about soils having large amounts of "unavailable" potash sufficient to last a number of years. The truth is, that for practical agriculture, unavailable soil elements might just as well be at the bottom of the sea. In the course of time they will yield up their inert substance just as the ancient rocks finally disintegrated and became soil. While we are waiting for this slow process, we starve. It isn't pleasant to starve nor to contemplate even comparative starvation for our children. It will pay better to put available potash on the soil now. The increase in yield of crops will more than pay for the cost of the fertilizer.

Not Likely to Use Too Much Nitrogen.

I was very much interested in an article in THE KANSAS FARMER of July 30, "Story from World Famous Rothamstead Experiment Station." I was surprised to learn from the article that at that station they have shown that there is such a thing as having too much nitrogen in the soil for the best results, that, "Nitrogen increases the vegetative parts of the plant and an excess of it tends to make the plant go on growing too long and defers the production of flower and seed; it puts off the ripening. Excessive nitrogen has doubled the amount of straw but reduced the per cent of wheat grain from 62 down to 48 per cent. The more nitrogen in the soil the more water and less sugar in the beet. An excess of nitrogen makes the plant more susceptible to disease, especially fungus disease. . . . The diseased leaves are seen torn, shriveled, and rotten. Wheat fields get rusty and weeds are mildewed on high nitrogen land." I would like to ask, if while that is the case in the moist climate of England it might not be just the reverse in our drier climate. That is, one year with another would not our crops be larger if the plants were kept growing a little longer?

Another statement of Director Hall surprised me. He is quoted as saying, "He knew of no soils in England so stiff that they would not be benefited by drainage. Some English lands are so hard the trenches can not be dug until after the Christmas rains have softened the ground and yet the drainage of these lands is most profitable. The benefit increases year after year." If such is the case there would not it be profitable to drain our gumbo land by tilling it, as I understand he means?

Chase County.

SUBSCRIBER.

The report which you have read of the detrimental effect of nitrogen on wheat at the Rothamstead Experiment Station undoubtedly did not give the amount of nitrogen applied per acre. In these experiments the Rothamstead Experiment Station applies nitrogen greatly in excess of the needs of the plant and in a much larger amount than is ever applied by the farmer. When applied in the proper amount for plant growth, nitrogen is not injurious but is usually beneficial.

It is very doubtful if the application of nitrogen upon the soils of the drier climates would cause the plants to grow longer in the season and thus give a larger crop. It is usually the

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limited supply of moisture that checks the growth and not a lack of nitrogen. Without water, plants will cease to grow regardless of the supply of nitrogen in the soil.

Dr. Hall's opinion regarding the improvement of stiff soils by underdraining is held by most agricultural investigators in this country. It is undoubtedly true that much of our gumbo land could be greatly improved by tilling, and undoubtedly much will be tilled in the future, although in many sections of the country there is some question as to whether tilling would be profitable at this time.

G. E. CALL.

Greater Wheat Straw-Worm.

PROF. J. T. HEADLEE, ENTOMOLOGIST KANSAS STATE AGRICULTURAL COLLEGE, IN PRESS BULLETIN NO. 165.

Of the insects attacking the stems of growing wheat, aside from Hessian fly and chinch-bug, only one appears to have done enough damage to attract attention, and that has been the greater wheat straw-worm (*Isosoma grande* Riley). This insect has this year appeared in considerable numbers in many parts of the Kansas wheat belt and some of our correspondents have expressed the conviction that, in limited localities, it has done as much injury as Hessian fly.

OCCURRENCE.

We have taken it in abundance in Sumner, Harvey, and Riley Counties and have received it from correspondents in Pawnee and Russell Counties. It has doubtless been at work in many other localities, but, owing to the obscure nature of its work, has passed unnoticed.

OBSOURE NATURE OF WORK.

Of course the results of this insect's work are not always obscure. Sometimes it so weakens the stems that they break a short distance below the head and fall over. Ordinarily, as indicated by this year's study, the greater part of the damage appears in blasted plants, and in poorly filled or empty heads, but as this condition may also be the result of chinch-bug or Hessian fly work, the grower frequently attributes his loss to the wrong cause.

HABITS AND LIFE HISTORY.

Where it now is.—The greenish yellow, footless larva, one-fourth of an inch or less long, is now just above or in the joint inside the wheat straw, both as it lies in stack and remains on the ground as stubble. Our studies have shown that it may occur above or in any joint from the surface of the ground upward. At Manhattan about 70 per cent of the larvæ were found just above or in the second and third joints above the ground. The grower may determine whether this insect is abundant in his fields by splitting open the straws and looking for the larvæ inside.

What it will do this fall and winter.—The larva will remain where it is until October when it will change into a black pupa and remain thus throughout the winter.

What it will do next spring.—About next March, small, pitchy-black, wingless, ant-like creatures, each about one-eighth of an inch long, will emerge from the infested straw and stubble and crawl, if possible, to growing wheat, where they will deposit eggs in the embryo wheat heads. The tiny grubs hatching therefrom will feed and fatten on this highly nutritious food, attain full-growth, transform and emerge about May as shining-black, winged, ant-like insects, one-fourth inch or less long. This brood appears to be made up entirely of females. They will deposit their eggs within the straw, usually just above the first exposed joint below the head. The grubs that hatch from these eggs will be the ones that will do the midsummer damage.

METHODS OF COMBATING.

Rotation.—When the grower has to deal with the greater wheat straw-worm alone, and can find it practicable, the planting of the succeeding crop on a part of the farm distant from the infested stubble and straw

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will enable him to avoid damage from this insect.

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How little it costs if we give it a thought,
To make happy some heart each day!
Just one kind word or a tender smile,
As we go on our daily way;
Perchance a look will suffice to clear
The cloud from a neighbor's face,
And the press of a hand in sympathy
A sorrowful tear efface.

One walks in sunlight; another goes
All weary in the shade;
One treads a path that is fair and
smooth;

Another must pray for aid.
It costs so little! I wonder why
We give it so little thought;
A smile—kind words—a glance—a
touch—

What magic with them is wrought!
—McCall's Magazine.

Do You Care?

In just a little while the children with dinner buckets and books will go trooping to school. Some will go reluctantly, and with backward looks, longing to remain at work or play at home—some joyfully, happy to lay aside implements of agriculture, to drop the hoe, and let loose the plow handle and once more to lay hold of books, not with the hand but with the mind, eager to learn, but perhaps the majority are those who go thoughtlessly and carelessly because the vacation is over and the time has come again to go to school. Mothers are busy getting them ready, that they may always be neat and well dressed. The mothers are glad for them to have an opportunity to learn, but how many know the school teacher or what her influence will be over the precious ones? How many have been inside the school house or know anything about the sanitary condition of the buildings and the well? Yes, I know how many things you have to do, but this is one of the important things that should not be eliminated. Nine months of the year your children will be in this room under the influence of this teacher, and you have a right to know, and it is your duty to know the conditions that exist.

Country schools are improving. More care is used in the selection of teachers year by year, but they should have the best that can be found. The country school teacher requires a special training and should possess unusual ability. She should be able to meet any emergency and be an inspiration and leader. The school is the social center as well as the educational center, and the influence that goes out from the school tells upon the community.

The teacher's character is reflected in the lives of the young folks, if she or he has a character strong enough to make a reflection. The teacher's opportunity and responsibility in the rural districts are unlimited and unrestricted. Therefore the burden she carries should be shared by the mothers and fathers, and they should contribute liberally towards her salary. If these teachers require a special training and should be specially fitted they deserve a better pay than the ordinary one. Farmers are abundantly able to secure the best in everything, and the best is coming their way. The very best things that you can give your children is not more quarters—sections, but better environments—social, educational, and spiritual. You can have the best by going after it and paying for it. See that your teachers are what they should be, and are well paid.

If you want the teacher to be interested in your children, to care for their welfare, you must show interest in them also. You would like to have the place where your children spend much of the time clean, healthful, cheerful, and comfortable. You would like the old room transformed but you do not know what to do. There are many things I might suggest, but if you become real interested you will find a way. Just one, hang upon the dirty wall a beautiful picture, nicely

framed and see if it does not lead to something better. The teacher and pupils will want to have a house-cleaning time and tint the walls, clean the windows, and hang curtains, etc. Once a lady gave a little girl with dirty face and hands a beautiful white lily. She gazed at it a long time in admiration and then looking at her hands, she ran and washed them. A very little thing if it is a step upward will lead to something better. It will at least show that you care.

The Model Country School Teacher.

It is an inspiration to hear about great advancements and forward movements even out of Kansas. U. J. Hoffman, who is giving special attention to country schools, tells in an address before the Illinois Country Teachers' Association how one country school teacher transformed not only the school house but all phases of life in the community. Some extracts are here given:

THE REMODELED BUILDING.

"The hall was clean and bright with its light-colored linoleum and walls in a good shade of green paint; it could not be told from the hall of a dwelling. The room had a large bay window with cosy seat and cushions. The new wall paper was quite plain in different shades of brown, and the colors of paper and paint harmonized well. Two good pictures, one being 'The Gleaners,' hung above the blackboard. A piano stood across one corner. New single desks, plenty of new blackboards, a bulletin board, two low tables, and several small chairs in front, curtains, rugs, and everything appropriate to the work done there.

"The new basement was built of concrete blocks and the floor of concrete. A furnace occupies one corner and two tables were in the rear; These were used for manual training and meals. The floor was left clear of benches for whatever work or play might be desired. Off one end was a small storeroom, and a larger coal bin. There is a good board walk to the door, the well is completely covered with a large, flat stone; the old coal house is gone, and the yard has been much improved.

ALL TOO FAMILIAR A PICTURE.

"But the conditions two years ago are told as follows by Director F. G. Bonser, of the Macomb normal training school:

"The paper was old and dingy; the blackboards cracked and useless; the plaster missing in spots; the window panes, broken, gone, and paper patched; the seats, old and double, and elaborately decorated with 'the jackknife's carved initial;' the stove, an ordinary unjacketed affair. The teacher's first work was sweeping cobwebs, scrubbing floors, and stove polishing. The yard was large and well shaded, but marred in front by the presence of the usual dilapidated coal house. The outbuildings were mere shells, disgracefully open and scant of boards."

GOT A COUNTRY TEACHER.

"President Alfred Bayliss of the Macomb Normal School, knew Miss Carney as a country school teacher of unusual success and thorough normal training, and he secured her to develop this typically needy rural school and make it a training school for student teachers. The only financial help given the district is that of providing the teacher. The reconstruction cost the district \$568. The boys painted the house and fence and put on the basement ceiling, made a book case, work tables, and other pieces of furniture, and the piano was to be paid for largely by the children's efforts.

"The teacher has gone out into the homes of the patrons to see their needs and to get their view points, and to carry to them the view points and desire of the school to be a living,

helpful thing in their work and in their whole lives. Mothers' meetings have been held, evening meetings for entertainment, social intercourse, and general improvement. A girls' culture club, including young women outside of the school as well as girls in school has been formed. Money making socials have been held. The teacher has enlisted the help of every one of her thirty to thirty-five children, and every patron who can aid in any way. And the results are worthy all the effort. The school's influence has changed the lives of the people in matters of dress, of household decoration, of keeping front yards and back yards, of ventilating rooms, of attendance on lectures and entertainments in the neighboring city; of their reading, of their farming, and of their plan for the higher education of their children. This school is literally socializing and spiritualizing the school district.

THE SALARY SHE GETS.

"No salary is big enough to pay for such work. The teacher's principal pay is in seeing this whole community respond to her magic touch and make so fine a growth toward the new country life of the new farmer, in thus holding out to many a student and visiting teacher a new picture of what a country teacher can do, and in knowing that these teachers will repeat some part of it in their own districts. Under the charm of such rich returns she scarcely knows that she does the work of two or three.

THE MYSTERY OF IT.

"What is the secret of this teacher's power to enlist a whole community in such happy improvement? Once upon a time she picked up a great ideal and an ambition of the same size, and with the growth of these her soul is not her own. She gives her very self in making the lives of the children 'large and lovely.' She can not be made to see that these new things are impossible and goes right ahead and does them. She has gone to the pains to get a thorough normal training that puts a plot into all her work, an edge to all her implements, and a steady hand to use them. Among the incidentals are an emotional nature and an outgo of influence that but for these unconventional traits might pass for magnetism.

"This is a dangerous and dynamic combination. Let others beware of contracting such a gravitation or 'something will be doing' in their locality.

SOME OF THE NEW METHODS.

"Spraying their fruit trees without benefit has made the farmers disgusted with the practise. Discussion in school and examination of agricultural bulletins showed that the spraying had been done at the wrong time and the farmers corrected the error. In arithmetic, problems in stock-feeding, fence-building, etc., were worked out. In studying about the home the teacher and class made trips to look at homes, talked about the plan of a house, visited furniture stores, studied the lighting and plumbing.

"Two farmers sent their sons to our College of Agriculture for the two weeks' corn instruction in January, and one will return for a year or more of study.

FAITH AND FORWARD STEPS.

"A class is assigned work and sent to the basement to do it, or left to study while the teacher goes to the basement to hear a class. Sometimes a class or two recites out under the trees. The teacher trusts them and they respond to her faith. She explains it, 'They care for the school as much as I.' Sixty visitors have been present at a time, and twenty-four county superintendents have visited this school. Students elect to take their teacher training here.

"From gross carelessness in dress, thinking that anything would do for school, the children have come to show taste and pride in appearance. Miss Carney 'gets acquainted with the children' and makes them know she 'cares for them,' the pith of it being that she does care for them. In teaching music she had the children learn about

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some of the great composers and the masterpieces; from this big general appreciative side they came down to the details; the children have learned to play good things, not merely 'rag-time.'

ON COMMON GROUND.

"It is fine to see the confidence, freedom, and fellowship between this teacher and her pupils; it is a mutual affair and 'the real thing.' Unconsciously they are taking in the finest things that stir life.

"Only some of the unusual results are here told; good work in the common studies is of course of equal importance. But is not all this true education, the best of growth, and well suited to rural life?

"To Miss Carney these seem plain, natural results of so much labor; she says that a great deal of such work is being done by country school teachers.

"True, every rural school can not have a Miss Carney for teacher, but every true teacher, no matter how different her individuality, can do some of this much-needed work and can learn to do more of it."

Teaching Girls to Cook and Sew.

The fifteenth large stone building and the largest and finest that has been erected by the great State of Kansas for the education of the farmers' boys and girls will be dedicated this week to the very practical work of teaching girls how to cook and sew and how to teach others to practise these arts. And here they are taught as arts, as arts of right living.

The new building, 92x176 feet, stands on the south end of the great semicircle, west and south of the auditorium. Every foot of space seems to be utilized, three full floors, all devoted to class rooms and laboratories and kitchens. One of the new features added is the small kitchen for a group, a dozen kitchens and four beautiful dining rooms in addition to the three large kitchens for classes. The young ladies will be given thorough instruction in everything pertaining to the cooking of foods, meats, vegetables, baking of bread, cakes, and pies, making soup, salads, etc. Hygienic sanitation, etc., are also taught, invalid cookery, etc. Then the matter of service is given much attention, and cooking on a small and fixed allowance.

The first floor and the basement are devoted to cooking while the beautiful second floor is given over to the domestic art work, sewing, home decoration, etc. Girls are taught carefully everything from the plain mending and sewing to the draughting, cutting and fitting of elaborate gowns. Then another course is given in home decoration and girls are given practical problems relating to the entire planning and furnishing of both small and plain homes to the more elegant homes of wealth. At the south and east is the "exhibit" room, probably the finest room on College Hill.

A few years ago two teachers did all the work, then one or two low salaried assistants were employed but now the domestic science and art departments include a teaching staff of twelve. In addition to the regular staff there are three teachers of drawing, a teacher of physical training, and a teacher of floriculture, who are really a part of the faculty of these departments.

The faculty is as follows: Mrs. Mary P. Van Zile, professor of domestic science and dean of women; Misses Ula Dow, Marjorie Russell, Clara Willis, Grace H. Woodward, Bertha M. Johnson, and Annie E. Lindsay, assistants; Miss Antonette Becker, superintendent of domestic art and, Misses Ina Cowles, Gertrude Stump, Mary W. Hancock, and Bertha L. Donaldson, assistants.

The domestic science and art short course of twenty-five weeks opens this year with the regular term, September 16, and altogether there will be at least seven hundred young ladies here before the end of September. Short-course students will not be received

after September 17. The value of the training given in this department can not be overestimated.

The Young Folks

THE CITY COUSIN.

He's my own cousin, mama says; but my! he's awful green! Because he's always lived in town and so he hasn't seen So very many things. He said he never milked a cow. And all the grass he ever saw was in a yard till now! He never gathered roasting ears, and it's the first time he Threw up a stick to knock down nuts And ate 'em off the tree! And he don't know where honey grows and never learned to swim! My! I would hate to be that old and not know more than him!

When he is home there ain't a creek and so he never goes A-fishing, and he hasn't got a suit of real old clothes, The kind you have to have to fish; and he says he can't go Barefoot with us because the grass and weeds would hurt his toe! He won't chew slippery elm bark or beeswax; he's afraid Of it because he told us that he don't know how it's made; And he won't dig up angle worms because they wiggle so; I never saw the place he lives, but my! it must be slow!

He don't know what a spring board is, and hasn't got a hat That you can dip a drink up with—he never heard of that! And if it's raining in the woods he hurries up to get Back home because he's so afraid he'll get his straw hat wet, One day we killed a garter snake—they don't have them in town— And he don't know the tall won't die until the sun goes down! And he is sorry that he never came down here, the more He thinks of all the things he's learned he didn't know before!

Still, I suppose he has to live somewhere, but it must be An awful thing to live so long and never climb a tree, Or plug a watermelon when you think it's ripe, or wear The kind of clothes that you can rip and do not need to care; Or dive into the creek or sit upon the bank and get Your back all freckled up and burned until you feel it yet When it is time to go to bed! He never learned to swim! My! I would hate to be that old and not know more than him!

—J. W. Foley, in New York Times.

Vacation Days.

The "Indiana" left the Goodrich docks on Water street, Chicago at 7:50 p. m. As every one knows the Chicago River is not beautiful to look upon but it is a means of getting on the lake, which is beautiful. The docks across the lake at Grand Haven were reached by 4:20 the next morning.

The "Lizzie Walsh" was tied up ready to take us up to the spring lake, but owing to the fact that the engineer was drunk or drowned, no one seemed to quite know which, the town was ransacked for another, so we were delayed an hour.

How can I describe that morning ride? The lake was smooth and the banks were wooded from the water's edge to the crest of the low hills. In every cove was a landing either belonging to some one's home or to a summer resort. Craft of every description were tied up, for it was too early for many people to be abroad.

My destination was Arbutus Banks, a landing where was a picturesque little boat house with two launches inside, a half dozen row boats drawn out in the bank, and a couple of sail boats, each tied to a buoy.

Friends, whom I was to visit, met me and after climbing a flight of stairs with numerous landings and benches whereon to rest, we reached the great brick house. It had once been the private home of a family, but so many friends had requested the pleasure of staying there that now each summer many people spend happy days or weeks there, the latter if possible. The farm extends up through the dense woods to the top of the hills and down to the lake. Orchards of fruits, berries, melons, and vegetables, cream, milk, and eggs, and a good cook, furnish an excellent table.

After breakfast there was such a variety of things to do. One may walk through the woods, and it is such a

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delight to trample over the leaves that are beginning to fall; or he may play tennis, or croquet, or sit on the spacious screened porch and talk, or read, or perchance an Indian squaw will happen by with a load of sweet grass baskets. And always there is fishing, and isn't it strange how often we may go fishing and never catch a thing, and it still holds the same fascination for us? It's simply one of

those great and interesting games of chance.

Then there is sailing, which most appealed to me. It too has its great fascination and the more trips one takes in a well built skimming dish the more he loves it. Catching the wind now this way, now that, splashing people first on one side, then the other, now up right, now tipped to such an angle that it most takes one's

breath, but with a good sailor one does not feel in the least frightened, especially if the men are all good swimmers.

Every morning we sailed down to Spring Lake for the mail. It is a tiny village with old houses, and quaint old-fashioned gardens, and great trees. Trips were made up the lake and down past beautiful summer homes, past fashionable hotels, past a ship-builder's yard, and the lake was full of craft of every description, the luxuriant \$3,500 mahogany finished motor boat, the sail boat, the gasoline or naphtha launch, row boats, canoes, everything that would stay on top of the water was brought into service. The "Easy Life," an \$1,800 motor boat, just returned from Mackinac Island some four hundred miles up the Great Lakes, but it was a trip few people would care to make in so light a craft. Luxuriant yachts anchored in front of luxuriant homes, rise and fall with the tide for the lake is not large enough for some of them.

Just one familiar object greeted my eye. I was told to look up the bank, among the trees in the next cove, and there stood a real California bungalow. It gave me a queer sensation just as when a fruit wagon went by, piled high with boxes of Redland's oranges.

Then one night after supper, we got in a skiff and rowed across the lake to a farm where a Scotch family lived. They have bees and a fine vineyard and from their own still make a wine that is quite noted here and most people take a good sized case of each back to the city with them. The night was perfect, the sun had slipped into a bank of gorgeous clouds and as the shadows deepened and the moon came over the hills, I wondered if it were just another story I was reading, or if I were really I. The landing was just a plank out in the lily pods, but the blossoms, like everything, were going to sleep. It is such a lazy, dreamy, restful life to live; every one is happy and I'm sure that happiness goes with one the whole year through. And what shall I say of the people? Interesting of course. The proprietor and his wife were very genial people, always looking to the comfort and happiness of their guests.

There was the garrulous old man, who did Swedish stunts for his health and whom every one shunned. There was the millionaire and his wife and two sons, such pleasant unpretentious people. There was an old lady and her two old daughters, one of whom they called "Sweetie," and no one ever stopped long enough to find out what the other one did go by. There was a mother and daughter and her chum, young high school girls with rats and huge bows and loud voices, ordinary to the point of being common and yet a foreigner who was there insisted they were typical American girls. This foreigner, by the way, was called the "Million-dollar Kid," since one day the men, before putting on their bathing suits, turned their treasures, watches, scarf pins, and purses over to us to care for. He drew out of his pocket \$1,035 in bills, rather more than a man ordinarily carries loose. He wore handsome jewels, which he said he got from the Austrian crown for his fiancée who, by the way, died and as some one remarked, "probably lucky fiancée."

There was a noted lawyer, whose name was seen in the papers a great deal a year ago. There was a charming woman and her beautiful daughter; and there were some jolly bachelors. And one night there was a birthday dinner given for one of them. A beautiful birthday cake with candles, ices, salads, bon-bons, and favors came up from Grand Haven. Toasts were given and if any one slept before 12 that night, it was not due to the quietness of the dinner party. Then one night there was a storm, a dreadful thunder storm! We had been sailing all the afternoon and came in about half past five. The wind was stiff even then, but quickly grew fiercer. The gray sky in the north grew grayer and by six o'clock we saw the first lightning, so far away that we couldn't hear

the thunder, then it came nearer, the forked lightning was seen one at a time, then in every direction half a dozen places at once, claps of thunder followed one another so closely and how it did rain! By 8 o'clock the storm was on in all its fury. One could see, by the almost continuous light, the lake and in each cove were the boats pulling and tugging at their moorings, lashed and beaten by the storm, the trees swayed, the lake was covered with whitecaps and the Storm King reigned in all his majesty. Every one was on the porch in rain coats or serafes, fascinated by the awfulness of it. By 10 o'clock it had abated somewhat, but in half an hour had returned with redoubled fury, as if it had struck an indomitable wall and had been returned with all the force of the contact.

The sky was constantly lighted and one could not get his breath between the claps of thunder. Each blast seemed louder than the last and a little nearer, and I was sure each time that the next would certainly strike the house. A great pine, some five hundred feet from the house was splintered and the phone was burnt out, but aside from that no damage was done. Never have I spent such a night, and I hope it will never be my misfortune to spend another such. I was frightened, not stiff, but limp, and by the time daylight came did not have strength to brush my skirt. It's a mystery to me why people live in such a place where these storms are liable to happen at any time, when there is such a place as "Dear old California, her skies are always blue."

Then the last day of my visit came and how I hated to think about it—the storm was over then. A last sail up the lake, a last look at the wooded banks, and the last jolly supper together, the signal went up for the Lizzie Walsh to stop and just as she bore in sight they suggested taking me to Grand Haven in the launch. Now I had been for some delightful trips in it before and the engine had never thought of missing a stroke, but it's a first cousin of the automobile and therefore not to be depended upon. It lost a beat now and then, sputtered, fizzed, and stopped, leaving us in the middle of the lake, several miles from Grand Haven and the Chicago boat scheduled to leave port in an hour, a passing launch was hailed, we were towed to the nearest landing, suit-cases were hurriedly gathered up and a dash made for the electric car, which came by in just fifty minutes. There were still seven minutes and not quite as many miles, but the boat was reached before the gang plank was shoved off, a hasty good-by, and thus came to an end a happy visit to a Michigan lake and happy days spent with a high school friend.

MINNIE WOOD.

Pasadena, Cal.

Never Met One Before.

The butler, tired of having nothing to do, had gone out to the stables to commune with the coachman, and was nosing around in his usual dignified way.

"My word!" he exclaimed, looking with some curiosity at an implement he had just picked up. "That's the biggest safety razor I ever saw. How do you put the blades in it, Jawge?"

"Safety razor!" howled the coachman. "You bloomin' idjit, that's a currycomb!"

The only trouble about making your mark in the world is that some fellow may come along and spill a bucket of paint on it.

Dress Hints.

I am fond of brown, and folks say it is very becoming to me, but I have never been able to get this color in thin dress goods that didn't fade. Do you know of an inexpensive, thin material that doesn't fade?—A. S. G.

There is a charming material called Simpson-Eddystone Fast Hazel Brown, made by a new process that makes it absolutely fast-color. Frequent washing does not fade it in the least. These goods come in many beautiful patterns, and I should say, would be just what you want. The price is very reasonable, and they make up into as stylish and attractive dresses as the high-priced cottons.

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The Little Ones

WHY?

MARGARET RAMSEY, WYANDOTTE COUNTY.

"Say, why don't the sky fall down gra'ma? Did they nail it to make it stay? Are the heads of the nails the stars, gra'ma? Then why can't we see 'em to-day?"

"Why didn't they make Heaven here, gra'ma—An' let folks live in the sky? The angels would not have so much to do then. They could just let us drop when we die."

"Why don't the clouds sail down to us sometimes. 'Stead of way up so high as they do? I'd love to slide off of that big, sowy one Up yonder, gra'ma, wouldn't you?"

"Will you have to wear specs up in Heaven, gra'ma? Who'll find 'em for you when they're lost? Will you have to give pennies to angels then? How much do Heaven specs cost?"

"Did they make you of stuff that was old, gra'ma, An' faded an' wrinkled, an' tore?" "I'm tired—I guess I will sleep a while now, When I wake, you can ast me some more."

Aunt Marion's Story.

Aunt Marion had scarcely had time to get her wraps off, she had come to visit the Ward family, when Dorothy threw her arms around her aunt's neck and whispered, "Auntie Marion you will tell me a story pretty soon won't you please?" Aunt Marion smiled and said, "Right after lunch, dear, when you go to take your nap I'll tell you a story."

It seemed to Dorothy lunch time never would come but of course it did and even at the table Dorothy reached over and patted Aunt Marion's hand and smiled, such a knowing little smile, then they ran off up stairs hand in hand and when they were comfortably dressed in their cunning little Japanese kimonos this is the story that Dorothy heard: "Once upon a time out in the orchard stood a peach tree. The peaches had been so big and pink and juicy. Fred had picked baskets full and mother had preserved them and even now there were great rows of them on the cellar shelf. They had them sliced with sugar and cream on and they had taken a basket of them across to Mrs. Lane, who was old and did not have any peach tree. And now not a peach was left on the tree. Even the leaves were putting on their party dresses

Heart Troubles

The heart may be weak just the same as the eyes, stomach or other organs. It often happens that a person is born with a weak heart. Then again disease, fevers, over-exertion, anxiety, nervousness, rheumatism, etc. weaken the heart. The result is shortness of breath, palpitation, pain in the heart, or in some of the nerves of the chest or abdomen. The heart should be strengthened with a tonic, and for this nothing equals Dr. Miles' Heart Cure.

"I had LaGrippe last fall as I thought in a mild form. I was weak, tired feeling, and short of breath; could hardly go about, and a good deal of the time sort of an asthmatic breathing and extremely nervous. I began taking Dr. Miles' Heart Cure and Nervine and now I feel so much better in every way. I am so thankful that I began taking this medicine, and shall not hesitate to tell others how much good it has done me."

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of yellow and gold and red. The wind came singing by and took a lot of them down on the ground and they danced and sang and then some more came down and joined them.

Away up in the top of the tree was a little green leaf who wanted so much to have her party dress and play with the others, but the mother tree whispered to her, "Not yet, not till your work is done." So she rocked in the wind still another day and helped take care of the tiny leaf baby, putting more little rubber coats around her to keep her safe and warm from the rain and cold of the winter. Then again the little green leaf asked, "Mother tree may I have my party dress now and play with the other leaves?" And the wind brought the message, "In a few days, now, finish your work and you shall have the most beautiful frock of all." Each day, bit by bit, she did her work well and one morning, lo, she had such a dainty yellow ruffle and the next morning it was yellow and gold and then, happy little leaf, some red had come to her that day and now her party dress was gorgeous to behold. She rocked in the wind. A robin chirped a goodbye to her, a belated butterfly touched her with his gorgeous wings, and everyone seemed to be singing a happy goodbye song. She rocked so hard that soon she let go and down on the ground she fluttered and flew and there with all the other leaves had such a frolic, but after while they grew so tired and every one went to sleep and made such a beautiful warm blanket for the violets that grew under the tree." Aunt Marion got up quietly, for Dorothy was asleep, too.

Pasadena, Cal. MINNIE WOOD.

Horticulture

Catalpa and Osage Orange Fence Posts.

Will you please give the relative value of catalpa fence posts compared with Osage orange fence posts? Nemaha County. E. R. MURPHEY.

So far as durability tests have gone, catalpa and Osage orange posts have compared very closely. There are, in the experiment station vineyards, posts which were set eighteen years ago, and both species are yet in good serviceable condition, with sound hearts and evidently good for many years yet.

Aside from durability, both species have some points of superiority. The catalpa is much nicer to grow and handle because of the lack of the thorns found on the Osage orange, and requires less pruning to grow a straight, marketable post. The catalpa is rather more rapid in growth than the Osage orange, and measurements seem to indicate that under average conditions, catalpas at seven years old equal in size Osage orange trees of twelve years. Osage orange posts are considerably stronger, in posts of given size, than catalpa posts. For purposes of heavy strain, Osage orange is superior, but for any fence purposes the catalpa is sufficiently strong. The catalpa is lighter and nicer to handle, and the difference in freight, on a given amount, when shipping is a considerable item. The same is true when the posts must be hauled any distance.

Some ranchmen prefer the Osage orange to the catalpa, believing that the latter is more easily kindled than the Osage orange, and more likely to burn in case of prairie fire.

Each species have the ability to reproduce from coppice growth, or sprouts, and is practically perpetual.

Osage orange is, perhaps, better adapted to high, dry lands than is catalpa, but in such conditions its rate of growth will be slower than when on good, rich, fairly moist soil. The figures given above, as to the relative size of the growing posts, are based on experiments made on good, rich, farming land.

ALBERT DICKENS.

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To Make the Rambler Flower.

The Rambler roses need no pruning in the ordinary sense. When the plant has become matted with the old canes and the wood so hardened that it is even difficult to make an impression on it with a knife, vigorous cutting out is essential to flowers.

A healthy plant will send up from its base strong, healthy canes if those that have flowered are cut out immediately the flowers are past. These young shoots will flower in abundance next year.

Rambler roses can be used in many other ways than tacked to the side of a building. They are particularly effective trained upon posts. I have seen them pegged down to the ground and other ramblers trained on frames, the whole when in flower giving the appearance of a cascade of roses.—L. J. Doogue, in the Desert Farmer.

Green Manures.

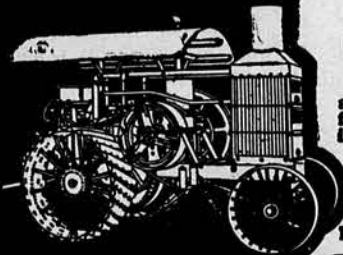
There is perhaps no more important problem before the fruit-growers than that of maintaining the fertility of their orchard lands. In spite of the fact that our growers seem loath to abandon clean cultivation, a few growers in the various sections are proving that it is both possible and profitable to grow crops in the orchards for manurial purposes.

The writer was much interested in inspecting a number of orchards in the vicinity of Paonia, Colorado, that were planted to red clover a year ago last spring. These include some of the oldest apple orchards on the Western slope. At the present time the clover is making as rank a growth as is often seen in the Eastern States, and contrary to what one might expect, the clover grows the rankest close to the trees where the shade is densest. One often hears the argument advanced by fruit-growers that one could not get sufficient growth of clover or other crops in the orchard to make it pay unless spraying and other team work were abandoned. These results at Paonia prove that clover will grow well in spite of the dense shade of large apple trees and the tramping of horses, wagons, and men.

There are many things that must be

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worked out yet in regard to the handling of these crops. It is generally conceded that fall plowing is best for orchards in Colorado, particularly if clover or other crops are to be turned under. But the lady bugs and other predacious insects have multiplied to such an extent in these orchards that both the green and the woolly aphids have been nearly exterminated. We could not afford to plow in the fall if by so doing these insects would be seriously disturbed. We may find, however, that predacious insects have

multiplied to as great an extent in orchards that have been in clean cultivation. Many other things must be considered as well.

We have always strongly insisted that our orchards would be materially benefited if the ground could be shaded during the hot weather. This contention seems to have been proved this season by the use of clover, but further observations must be made before correct conclusions may be drawn.—W. Paddock, Colorado Agricultural College.

Dairy Interests

Milk Production—Feeding.

BY HERBERT A. HOPPER, PURDUE UNIVERSITY EXPERIMENT STATION IN CIRCULAR NO. 13.

(Continued from last week.)

CARBOHYDRATES.

Carbohydrates include such substances as sugar, starch, and crude fiber as they exist in the different foods. This group constitutes the larger part of the food consumed by farm animals, and when burned in the body, it furnishes the heat and energy for body functions and muscular activity. They are actually burned within the animal, the heat not needed to maintain temperature being thrown off. Milk solids draw heavily upon the energy of the cow. When carbohydrates are fed in excess of the demands of the animal body, fat may be formed. They are the source likewise of milk sugar and butter-fat.

FAT.

Fats or oils are common in both plant tissues and seeds, and in the animal body, where they are characteristic of the species. The rough fodders contain comparatively small amounts while cotton-seed, flax-seed, and corn contain large amounts. Fats perform the same function in the animal body as do carbohydrates, with the exception that they are $2\frac{1}{4}$ times as valuable. Fats and carbohydrates are interchangeable, one may take the place of the other, but neither can assume the function of protein. No more muscle can be replaced or built up, or casein produced, than there is protein in the food. Protein can take the place of carbohydrates or fats when either is deficient, though this is an expensive substitution, but no amount of carbohydrates or fats will make up for a deficiency of protein.

FOOD OF MAINTENANCE.

The vital activities of the body require a certain amount of food for their support. This is called the maintenance requirement or the maintenance ration. A cow weighing 1,000 pounds in normal condition on the average will require .7 pound protein, 7 pounds carbohydrates, and .1 pound of fat in a digestible form, to maintain her without gain or loss in weight. Such a ration supplies nothing for growth, work or other purposes. Its importance lies in the fact that returns in the form of a product can not be expected until something more than a maintenance ration is being consumed by the cow. So long as the cow makes proper use of her food, the more she will eat above maintenance needs, the more profitable she will be. Cows that are hearty feeders usually yield profits.

DIGESTIBLE NUTRIENTS.

Not only is there a difference in the digestibility of the total dry matter in different feeds, but there is likewise a difference as to digestibility of the proteins, carbohydrates, and fats from different sources. There is a difference between total nutrients and total digestible nutrients. The digestible nutrients are the only ones considered in making up rations.

PROPER FEEDING.

In order to meet the food requirements of any cow, the composition of her milk and food should first be known. This knowledge can only be obtained through chemical and Babcock tests of the milk, and through feeding experiments to determine the amount and relative value of the various nutrients the animal is able to obtain from the foods in question through digestion. Countless samples of milk from cows of different breeds and different grades have been tested while their food requirements were being studied. The digestible nutrients that all the common foods contain on the average are now known, as well as the amount of digestible protein, carbohydrates, and fats that the ordinary dairy cow requires in or-

der to produce 1 pound or 100 pounds of milk of known composition. The approximate composition of milks testing 3, 4, 5, and 6 per cent butter-fat is given in the following table:

Fat per cent.	Protein per cent.	Carbohydrates per cent.
3	2.8	4.5
4	3.2	4.9
5	3.6	5.0
6	4.0	4.9

From the above it will be seen that, as the butter-fat increases, the protein content of the milk increases. Also, that the carbohydrates increase up to 5 per cent butter-fat, when they apparently cease to follow. It shows that a cow testing 5 per cent butter-fat requires more protein in her food than a similar cow producing only 3 per cent milk. It has been shown, as would reasonably be expected, that the food requirements increase in quantity proportionately to the increase in quantity of any particular grade of milk, so that we should supply the protein and other nutrients according to the quantity as well as the quality of milk produced by the cow in question.

Of course, more food is needed than the mere composition of the milk would indicate. All foods and especially dry forage, will vary somewhat from the composition indicated in the table of digestible nutrients. There is a waste in converting the protein of the food into the protein of the body or the casein of milk. Mastication, digestion, and elaboration cause an expenditure of energy, so that to the productive part of the ration must be added the maintenance or energy producing part before all the nutrients needed are determined. The following table gives the nutrients required for the production of one pound of milk of the quality indicated:

Table 2.—Feeding Standards.*

For milk testing.	Protein lbs.	Carb. lbs.	Fat lbs.
3.0 per cent fat.....	.042	.19	.013
3.5 per cent fat.....	.045	.21	.015
4.0 per cent fat.....	.048	.23	.016
4.5 per cent fat.....	.051	.25	.018
5.0 per cent fat.....	.054	.27	.019
5.5 per cent fat.....	.057	.29	.02
6.0 per cent fat.....	.060	.31	.022
Daily maintenance per 100 lbs. live wt.....	.07	.70	.01

*Prof. T. L. Haecker.

NUTRIENTS FOR MAINTENANCE AND PRODUCTION.

From the table just given it is easy to calculate the nutrients required by any cow providing her weight and the quality of her milk are each known. With a cow weighing 1,100 pounds and yielding 35 pounds of 3.5 per cent milk daily, the calculation would be as follows:

	Pro.	Carb.	Fat.	lbs.	Fat lbs.
For maintenance.....	11	x (.07—.70—.01)=	.77	7.7	.11
For 35 pounds milk.....	35	x (.045—.21—.015)=	1.57	7.35	.52
Daily requirement.....			2.34	15.05	.52

In this way it is learned that the cow will require in her ration 2.34 pounds of digestible protein, 15.05 pounds of digestible carbohydrates, and .63 pound digestible fat. Table 3, computed from table 2, gives in convenient form for ready reference, the maximum standard requirements for a 1,000 pound cow.

Table 3.—Maximum Digestible Nutrients per Day for a 1,000-Pound Cow for Maintenance, and the Yield and Quality of Milk Indicated.

	Protein lbs.	Carb. lbs.	Fat lbs.	Nut'v ratio.
For maintenance.....	0.7	7.0	.01
20 pounds milk.....	(3 percent butter-fat.....1.54	10.80	.36	1:7.5
	(4 percent butter-fat.....1.66	11.60	.42
	(5 percent butter-fat.....1.84	12.80	.50	1:7.3
30 pounds milk.....	(3 percent butter-fat.....1.96	12.70	.49	1:7.1
	(4 percent butter-fat.....2.14	13.90	.58
	(5 percent butter-fat.....2.41	15.70	.70	1:7.0
40 pounds milk.....	(3 percent butter-fat.....2.38	14.60	.62	1:6.8
	(4 percent butter-fat.....2.62	16.20	.74
	(5 percent butter-fat.....2.98	18.16	.90	1:6.7
50 pounds milk.....	(3 percent butter-fat.....2.80	16.50	.75	1:6.7
	(4 percent butter-fat.....2.90	18.50	.90
	(5 percent butter-fat.....3.55	21.50	1.10	1:6.5
60 pounds milk.....	3 percent butter-fat.....3.22	18.40	.88	1:6.3
70 pounds milk.....	3 percent butter-fat.....3.64	20.30	1.01	1:6.1

In general, the amounts here indicated should be reasonably well adhered to, though exact conformity is not essential to good results. They are offered as practical guides, and should be used as such, though amounts in excess of those indicated will hardly prove profitable except in rare cases where the individuality of the animal dictates differently.

SELECTING THE FOODS.

Assuming that all the requirements of the cow have been determined, the



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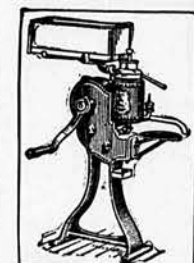
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problem then becomes one of using the farm grown and other foods to best advantage, while satisfying the appetite and providing the nutrients needed in the right proportion. For the beginner, it is a matter of cutting and trying. However, there are some rules to be followed. An average cow will consume from 20 to 25 pounds of dry hay or roughness per day. When silage is used more total roughness will be eaten. For ordinary feeding, the grain will vary from $\frac{1}{3}$ to $\frac{1}{2}$ the weight of roughness in the ration. When cows are forced it may reach $\frac{2}{3}$ the roughness. These amounts are to be varied of course with the weight of

The physical nature of the ration requires attention as well as its nutritive properties. All ruminants require bulk in their food, though this point needs little attention where hays are fed freely. Heavy grains like cornmeal, pea-meal, cottonseed-meal, and various grades of middlings should be fed in combination with ground oats, wheat bran, etc., in order to improve the physical condition of the mixture and thus facilitate digestion. The selection of foods should be made with these thoughts in mind.

PRACTICAL FEEDING.

Economical results in milk production must be sought through a greater production and use of farm-grown foods. The amount of grain which dairymen are now feeding varies from 7 pounds to 25 pounds per day, depending upon the individuality of the cow. In all but exceptional cases, medium quantities of both roughage and grain usually give better results than heavy feeding of either. In so far as nutritious hays like clover and alfalfa can be comfortably consumed, their nutrients are as available for producing milk as are the nutrients of the concentrates. The only reason for feeding grain, is that the cow can use more nutrients than her capacity will permit her to obtain through the consumption of bulky material. Heavy feeding of grain, except where cows are being fed for large records,



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Meets every emergency in the Dairy

It has a solid, low frame; waist low supply can without the back breaking low crank; simple yet thoroughly efficient bowl, holding World's Record for cleanest skimming; is thoroughly lubricated, as gears run in a pool of oil, and has ball bearings at high speed points, making it the easiest running separator made.
Do not delay longer in the purchase of a separator and buy no other until you have seen our catalogue No. 91 sent to any address on receipt of a postal.
Vermont Farm Machine Co., Bellows Falls, Vt.
Prompt deliveries from 16 distributing warehouses in the U. S. and Canada.

A Bird's Eye View



of a city doesn't do justice to it, because it only gives an idea.

The same applies to this advertisement; it only gives a small idea of the Tubular qualities.

We want you to have a thorough understanding of the benefits derived from a Tubular Separator.

The simplicity, durability and efficiency of the Tubular are admitted by our competitors and vouched for by thousands of satisfied users.

It is built to skim clean and last a life time; and it does and will.

The Tubular bowl is so simple and so easy to handle that it can be cleaned in two or three minutes.

There are so many points of excellence to be found in the Tubular, that to get a thorough knowledge of them you must read Catalog 165.

THE SHARPLES SEPARATOR CO.,
West Chester, Penna.

Toronto, Can. San Francisco, Calif. Chicago, Ill.

regardless of consequences, should give way to a liberal use of leguminous hays and silage, and such amounts of grain as are needed to furnish nutrients not already furnished by the roughness. Ordinarily, the amount of grain will vary from 6 to 12 pounds where nutritious roughness is supplied abundantly. It is not usually desirable to restrict to one kind of grain or mill feed as previously explained. When attempting to produce a ration entirely upon the farm, economy may dictate somewhat less variety than otherwise. Too much emphasis can not be laid upon the importance and use of farm grown foods, for the common grains combined with corn silage, alfalfa, clover, or cow-pea hay will give the same yield of milk and butterfat when rationally fed, as will the mill feeds, and on the whole they have a tendency to produce better results.

The herd should not be fed in a careless, wholesale fashion, but the requirements of each animal should be studied from the quantity and quality of her milk, making such allowances as are necessary for her particular weight. The standards previously referred to enable the feeder to determine each cow's requirements. For the practical dairyman it will be sufficient to divide the herd into groups considering their stage of lactation, amount of production and age, and compound a ration from the foods available, that will suffice for each group. Scales are essential in feeding a well-managed herd, as in determining their records of production. The amount in any case will soon be learned, and the labor will be found to be no greater than in the ordinary careless manner of feeding, but the results will be vastly superior. As the cows advance in lactation or the foods are changed, it will be necessary to calculate the rations anew.

(To be continued.)

Over-Run and Salaries.

In Denmark the salary of a butter-maker depends on the over-run he secures. This compels him to give attention to this important feature of his work. The law limits the amount of water he can incorporate, so there is no danger on that point, but it makes the buttermaker who gets a 12 per cent over-run "sit up and take notice." The Danish Governments assist the creamery in this as well as other features of creamery work and many analyses of butter are made at the Government laboratories.

In that country of keen competition and small profits the success of a creamery depends on the over-run it

secures and uniformity in over-run is also important. It will not do to get 13 per cent one day and 18 per cent the next. The 18 per cent butter may get the creamery in trouble and the 13 per cent butter will mean a financial loss. Our readers will be interested to note the results secured by one of the instructors in an Eastern dairy school. His record shows for seventeen churnings a water content ranging from 14.2 to 16.3. Only two of these churnings ran less than 15 per cent water, and only two ran over 16 per cent. The records which he kept show the date, kind of churn used, pounds of cream, test of cream, pounds of butter-fat, temperature of cream, buttermilk tests, temperature sprays, fast gear revolutions, temperature water fast gear, revolutions slow gear, temperature water, revolutions for salt, pounds butter, over-run, and per cent of water.

In matters of this kind complete records aid materially in controlling the work, as it gives a basis of comparison from day to day. The temperature of the cream will vary as well as the temperature of the atmosphere, and unless these are watched and studied it is impossible to control the over-run.—New Zealand Dairyman.

Under the direct supervision of Chief Ed. H. Webster of the Dairy Division there will be held a dairymen's convention at the third annual National Dairy Show in Chicago at the Coliseum, December 2 to 10 inclusive. It is the purpose of this convention to deal with subjects of National importance, and the program will be filled with men who will be eminently capable of dealing with subjects of the highest interests to dairy farmers.

Let the light into the cow stable, it is death to disease.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Notes.

Don't waste good grain and valuable time this winter on scrub hens. It doesn't pay. You can not afford to feed them, especially with the high prices of chicken feed. If your hens are not giving you from twelve to fourteen dozen of eggs apiece during the year, you are not making as much money out of them as you ought. It takes about eight dozen eggs a year to pay the hen's board and keep, and if she falls below that you are keeping her at a loss. Get rid of the mongrel stock you have and start in with pure-breds. The scrub hen is causing a loss of millions of dollars every year.

Now that meat is so high a great many farmers are butchering their own beeves and hogs. In some communities they have cooperative societies for supplying the members with fresh meats, one member butchering one week and dividing the carcass among his neighbors and another member the following week, and so on till all have butchered. In nearly all these butcherings the blood of the animal is allowed to go to waste and here is where we want to speak for the hen. This blood, if saved and mixed with cornmeal, makes the best kind of feed for laying hens. If it is desired to keep the blood for some days, it can be placed in a pot on the stove and cooked, when it will thicken and keep for quite a length of time.

On almost every farm there is a shed that is fairly dry all through the winter. In this shed throw dry leaves or cut straw or hay to the depth of ten or twelve inches. Nail a board at the front of the shed so as to keep the leaves from being scratched out, and in this litter, scatter the whole grain you intend to feed your chickens. They will scratch for it the whole day long and in this way secure exercise while getting their feed. The leavings of the hay now is capital stuff to use



in such a shed, especially if there has been alfalfa or millet in the barn.

If roots and ensilage improve the health of animals, and cheapen the cost of the food, as claimed by agricultural experts, they will do the same thing for fowls. Now that feed stuffs are so high in price, it is too expensive to feed grain exclusively, when the winters are long and severe, and as the hens prefer a variety of feed, they should have it. A quart of cornmeal, added to half a peck of turnips, will provide a better meal than can be procured from either the cornmeal or the turnips if either are fed alone. It is the mixed food, the combination of various elements, that enables the hen to provide the different substances that make up the combination called an egg. Lime, phosphates, nitrogen, magnesia, and even water, are elements that are absolutely essential, and many foods contain an excess of some kinds and a deficiency of another. When a mixed food is given, there is a partial balancing of the needed elements, and the several varieties assist in digesting each other, thereby avoiding waste of undigested food. Finely chopped ensilage, or clover or alfalfa, potatoes, turnips, carrots, beets, or any succulent bulky food, served with an admixture of a variety of ground grain will provide the hens with a larger supply of egg elements and entail less loss for food than when the hens are compelled to subsist entirely on grain and the cost is very materially reduced.

When you watch the hens on a free range, they seem to be eating during the whole day, and the supposition is that they get more than they should. It is true that they can secure more than enough on a range when everything is growing, but they also expend a great deal of energy in so doing. On the range the hens get a little at time, perhaps a worm here, a seed there, or some delicacy in the shape of green food somewhere else, but they are ever moving from place to place, and are as busy as possible. It is a different matter when they are confined in a small yard and are fed everything they eat by their owner. He throws down the food and they fill their crops at once. Having done so they are satisfied and "wax and grow fat." There is a lesson to learn from the natural mode of feeding by the hens. Give them their food in small quantities and not all at once. If grain is fed, throw it among some litter so that the fowls may scratch for it and not gobble it all up at once. When the crop is overloaded, too much food is passed into the gizzard to be triturated, and the digestive organs are overtaxed, but when the food is eaten gradually and slowly, digestion is also gradual and the system is invigorated by the exercise of securing the food. The study of how best to feed will assist in avoiding mistakes and enable one to feed at the lowest cost.

The father of one boy runs only half the risk of having it turn out badly as does the father of two.

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It hatches every egg possible to hatch.
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REMEMBER—That I have a choice lot of young stock coming on. All Smith's laying strain Rocks. Choice breeders. Prices right. Chas. E. Smith, Mayetta, Kans.

White Plymouth Rocks EXCLUSIVELY.

For 16 years I have bred W. P. Rocks exclusively, and have them as good as can be found anywhere. I sell eggs from first-class, high-scoring stock at live and let-live prices. \$2 per 15, \$5 per 45, and I pay the expressage to any express office in the United States.

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PURE Single Comb Rhode Island Red Cockerels, 50c to 75c each. J. N. Barntrager, Garnett, Kans.

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Light Brahma Chickens

Choice pure-bred cockerels for sale. Write or call on

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BROWN'S WHITE WYANDOTTES—Ahead of everything; stock for sale; eggs in season. I have the English Fox Terrier dogs. Write me for prices and particulars. J. H. Brown, Boyero, Colo.

LEGHORNS.

SINGLE COMB Brown Leghorn Cockerels for sale. February hatch. Address F. E. Town, Haven, Kans.

FIFTY S. C. B. Leghorn cockerels, founded by stock of prize-winners, Chicago World's Fair; headed by cock from Washington, D. C. Experiment Station; \$1 and \$2 each. Head cock, \$5. Mrs. Pleasant G. Eads, Route 4, Clark, Mo.

S. C. Brown Leghorns.

Early hatched cockerels, \$1.25 each. Lots of six, \$5. Per one dozen, \$10. A few yearling cocks for sale. Write for prices on pens, pairs or trios. L. H. Hastings, Quincy, Kansas.

BUFF ORPINGTONS.

BUFF ORPINGTONS—1600 utility, January, February, March hatched cockerels and pullets to sell. Buy now and get the pick. Price will advance next month. Catalog free. W. H. Maxwell, 1904 McVicar Ave., Topeka, Kans.

CHOICE Buff Orpington and B. P. Rock cockerels. Collie pups and bred bitches. Send for circular W. B. Williams, Stella, Neb.

SCOTCH COLLIES.

SCOTCH COLLIE PUPPIES—Natural born cattle drivers. Pedigreed stock. W. Hardman, Frankfort, Kans.

SCOTCH COLLIES of the very best breeding, have the intelligence of a human. For particulars address, DEER LAKE PARK, SEVERY, KAN.

SCOTCH COLLIES—Pups and young dogs from the best blood in Scotland and America now for sale. All of my brood bitches and stud dogs are registered, well trained and natural workers. Emporia Kennels, Emporia, Kans. W. H. Richards.

Scotch Collies.

Fifty-seven Collie puppies just old enough to ship. Place your orders early, so you can get one of the choice ones. Walnut Grove Farm, Emporia, Kans.

Incubators and Brooders

If you want a good incubator in a hurry write to the undersigned. He keeps the Old Trusty Incubator (hot water) and the Compound (hot air), two of the best incubators made. Also the Zero brooder, no better made. It pays to buy a good brooder. No use hatching chicks without a good brooder to raise them. The Zero will raise every chick you put in it.

THOMAS OWEN, Sta. B Topeka, Kans.

When writing our advertisers please mention this paper.

Census Returns of Assessors.

(Continued from page 947.)

the population of the State. Four new towns appear in the 1,000-or-over class. They are: Syracuse, which gained 121 in the year, Alma, which increased 83, Scranton and Solomon with 390 and 159 more, respectively. Of these Scranton re-entered the list after an absence of two years. Five towns, Kiowa, Strong City, Curranville, Jewell, and Almena, have dropped below the 1,000 mark.

There has been considerable shifting this year in the rank of the leading cities. Kansas City, of course, continues in first place, with a margin of more than 37,000 inhabitants over Topeka, which is still second largest. Wichita established herself more firmly in third place with her large increase, having gained appreciably on Topeka, while Leavenworth, losing, still ranks fourth. Pittsburg, with 70 people less than last year, nevertheless advances two points in rank, and is now 5th. Coffeyville is 6th, as before, but lost 155. Atchison, whose inhabitants were enumerated in 1903 for the first time in three years, shows a decrease of 1,468 in that time, and recedes in rank from 5th to 7th place. Independence has gained a point and is now 8th, changing places with Parsons, which is 9th. Salina and Emporia changed places, the former advancing. Ottawa rises from 19th to 17th place, Newton 20th to 18th, and Manhattan 28th to 25th. Great Bend increased phenomenally, having gained nearly 38 per cent in population, and seven points in rank, now being 28th. Garden City, which made even more striking gains in the two years preceding, retains its last year's rank, 34th, but shows a slight loss.

Other noteworthy changes in rank are shown by Caney, which in 1906 was 44th, and has jumped from 39th place in 1907 to 29th place in 1908; Paola, which advanced from 44th to 36th place; Olathe 46th to 40th place, and Girard 52d to 47th place. Council Grove is now 50th in rank instead of 56th, Anthony 52d instead of 62d, Pratt 57th instead of 87th, and Mineral 75th instead of 108th.

Liberal, which entered the list in 1907 with a 54 per cent gain, continues to grow, reporting 28 per cent more inhabitants this year, and going forward 20 points, to 102d place. Arkansas City, another Cowley County town, has dropped from 17th to 19th place, Concordia from 27th to 30th place, Norton 31st to 37th, and Herington 32d to 42d. Holton lost 4 points in rank, and is now 45th, Frontenac goes from 43d to 48th place, and Burlington from 51st to 62d place. La Harpe and Gas, both in Allen County, show decreases, the former dropping from 49th to 61st place, and the latter from 76th to 96th place.

Changes in Kansas as Seen by Professor Waugh of Massachusetts.

EDITOR KANSAS FARMER—About fifteen years ago I joined the "formerly of Kansas" crowd and acquired a residence in New England. Now for a month I have been renewing my youth in a vacation on the plains of Kansas, which I find still seem like home to me. Nothing else can ever be so vivid and real to me as the sunflowers, the jack rabbits, and the level fields of blue-stem. It is a fine experience to get back here for a time, as I suppose it is for any man to revisit the scenes of his boyhood. Everything interests me, but naturally I find myself most occupied with agricultural conditions. And as every man who thinks is always making comparisons, my mind has been full of comparisons between the agriculture of New England and that of Kansas. I have found equal interest, too, in comparing Kansas of to-day with the place I knew fifteen to thirty years ago.

There have been great changes in Kansas, and I suppose I see them more plainly than do the people who have lived here all the while. Some of these changes strike me very forcibly.

The first thing that strikes one is

the unquestionable and unbounded prosperity of agriculture in Kansas. Of course the farmers of Kansas always have been prosperous,—except, perhaps, in '92-'94. But now they seem to have beaten all the prosperity records and are so well off that they hardly know how to act, like a boy who has just been accepted by his best girl. I have recently visited the Southern States and know that they are also surprisingly prosperous; and I know that New England agriculture is in a most flourishing condition; but nowhere is prosperity so obvious and so conscious of itself as in the Sunflower State.

Connected with this area of good times is the surprising rise in land values. Already land is selling higher in Kansas than in the Eastern States,—in some cases at three or four times the price. I mean of course for land of equal productive capacity. Kansas people are entirely proud of this fact, and seem to be willing to keep up the boom. It seems to be considered a brave and proper thing to do, though I confess to my misgivings. This higher capitalization, when the pinch comes, will prove a serious handicap for farm owners to carry. In the past agriculture has been relatively more profitable in the West than in the East partly because of lower land values; but in the future this advantage will lie with the Eastern States.

After an interval of fifteen years I find great improvements in agricultural practise. Corn-growing in particular is much improved. There are still many improvements to be made, but better varieties, better seed, and better methods of cultivation have done wonders. Wheat growing shows much less improvement. The introduction of alfalfa has been an agricultural revolution in itself. The magnificent alfalfa fields on every hand, not one of which existed here in my day, are a constant delight.

The improvement of live-stock has evidently gone forward rapidly also during the last fifteen years. In almost every pasture I see high grade Shorthorns, Herefords, and Polled Angus. The hogs are almost as much improved. Even the poultry shows signs of throwing off its nondescript character and assuming the proud uniformity and patrician air of pure-bred stock. In the olden times the cattle were mostly scrubs or Texas long-horns.

Rural free delivery and the telephone lines have wrought another revolution. When I was a Kansas boy I used to go eight miles aboard my cow pony for the mail; and if I wanted to get together a gang of thrashers we had to drive fifteen or twenty miles about the country to do it. Now one calls the neighbors up on the telephone and attends to the whole matter during nooning. Of course rural free delivery and telephones are not peculiar to Kansas. They may even be better developed in the East; but present conditions offer a sharp contrast to the situation which I so well remember.

There are many other changes which I notice,—the most of them in the way of improvement, but a few with offsetting disadvantages. But it is fine to come back once in a while and see the old State boom; and it makes one feel like carrying some of the Kansas enthusiasm back to the comfortable conservative regions of the East. F. A. WAUGH.

Plainville, Kans.

Automobile License.

EDITOR KANSAS FARMER—Having bought a touring car, I would like to know if I am required to have a State license? I am twenty-five miles from the county seat and six miles from a third class city. I have heard we do not. If I am obliged to have a license for Kansas, please tell me from whom I am to get the same, as I want to be on the safe side.

Reno County.

A READER.

We are pleased to advise you that there is no State law in Kansas requiring a license on automobiles.



Beautiful Your Home

You've got a cozy, comfortable home inside—now make it attractive outside. It won't cost you much and it's perfectly wonderful how much finer the old home will look when its lawns and gardens are enclosed with one of the many beautiful patterns of our famous

Cyclone Ornamental Fence

Cyclone fences are strong and durable—last for years without repairs. They're built and guaranteed by the largest ornamental fence company in the world. A Cyclone fence around your front yard will attract the attention of everyone who passes your home.

The **CYCLONE DRIVE GATE**, made of high carbon structural steel tubing, is the lightest, strongest and most durable drive gate made—outwears 20 wooden gates—never sags. Write today for our Free Picture Book of Cyclone fences, gates, tree guards, trellis, etc., which shows exactly how they look and tells you about their cost, etc.

Cyclone Fence Co., Dept. 111, Waukegan, Ill.

Nearly all of the larger cities have adopted ordinances governing the registration and numbering of automobiles, but while a bill was presented at the recent session of the Kansas Legislature, it failed of passage, and it is not necessary for you to carry a license number, or to register your car unless you are living in a city which has a registration ordinance.

It is not customary to require the registration of vehicles in their occasional visits to a community where registration laws exist, so we think you will have no trouble in visiting any of the cities about you.

W. J. V. DEACON,
Treasurer Smith-Automobile Co.

Extravagance in the Rural Districts.

The average cost of carrying a ton of goods a mile by lake is eight-tenths of a mill, and by rail seven and sixteenth mills. The average cost of carrying a ton of goods a mile on first class roads is said to be seven cents, and on common country roads twenty-five cents.

The latest report (made by the Department of Agriculture for 1904) shows 2,151,570 miles of public roads in the United States, of which 7.14 per cent were improved. In old, populous and rich States, such as New York, Pennsylvania, Illinois, Michigan, improvements were reported on less than ten per cent of the public roads.

Almost every pound of freight originating upon or destined to a farm moves over a country road, at a cost some three times as high as it would be if the road were first class. Some times the goods actually pay a heavier toll for a few miles' carriage between railroad station and farm than for all the remainder of the journey.

The railroads themselves spend millions to clip off one or two per cent from operating expenses, here and there; and, if farmers were presented with a feasible scheme for reducing their railroad freights even one-quarter, they would feel that there, indeed, was a burning issue.

Road improvement receives much more attention than formerly, but much less than it deserves.

Stock Interests

Immunity Against Anthrax.*

BY E. C. L. MILLER, M. D., OF THE DEPARTMENT OF MEDICAL RESEARCH OF PARKE, DAVIS & CO.

For centuries smallpox was a frightful scourge with no known means of checking it. During this time it was observed that one attack usually made the subject immune ever after, so that no matter how much he was exposed to infection, he did not acquire the disease.

PRINCIPLES OF IMMUNITY.

Then inoculation smallpox was introduced in 1722, and so great was the danger from smallpox that thousands submitted themselves to this new danger in order to avoid the greater.

*Reprinted from *Veterinary Notes*, December, 1907.



SHIMER FARM FENCE

The only fence perpetually taut. The crimp in the wire does it. Can't sag, bulge or loosen from the tie wires. Made of high carbon, crimped, spring steel wire. Never needs repairs.

Requires only half the usual number of posts. Agents Wanted in every community to take orders for Shimer fence. Permanent employment. Liberal profits. Write for proposition. Address nearest factory. Coffeyville, Mo.

Box 225, Coffeyville, Mo., or
Spring Steel Fence & Wire Co.,
Box 225, Anderson, Ind.

Inoculation smallpox consists of inoculating a healthy person with the virus from a mild case of smallpox. The fact that the virus was from a mild case, together with the small amount used, usually caused the patient to have but a mild attack of smallpox, from which he usually recovered, though some died. This mild attack, however, gave protection from future infection.

The next step was about 1780, when Jenner discovered that those infected with cowpox were also, to a large extent, immune to smallpox. Jenner, himself, considered cowpox as in some way an attenuated form of smallpox, which it must be or it could not protect one from the virulent smallpox infection. Since the time of Jenner there has been practically no change or advance in the methods of preventing smallpox.

Advancement in the knowledge of preventive inoculation then moved from England to France and centered around the name of Pasteur. Pasteur, about 1880, noticed that cultures of the bacillus of chicken cholera, when grown for some time in bouillon in the laboratory, gradually lost their power to produce the disease, but that fowls which he had attempted to kill by injecting them with these old cultures were thereby made immune to subsequent inoculations with fresh cultures. In this way Pasteur discovered his method of vaccination with attenuated bacterial cultures. He soon applied this method successfully to anthrax, which was killing many sheep and cattle in Europe, and his method has been in use, practically unmodified, from that day to this.

IMMUNITY AGAINST ANTHRAX.

Our knowledge of pathology has been constantly increasing. We know that bacteria in the body are destroyed by the leucocytes, and that immunity is produced as a result of this destruction. Further, that dead bacteria are destroyed by the leucocytes just as live ones are, and that immunity is equally the result. In vaccination with live cultures, attenuation is necessary in order not to kill the animal, but if the culture be attenuated too much it does no good—it is promptly destroyed by the leucocytes and no immunity results. It must be attenuated to just the right point, so that it will grow and multiply in the animal to such an extent that when the germs are finally overpowered by the leucocytes there will be enough of them to produce immunity.

Now, as the natural resistance of animals varies, the amount of development of the germs will vary also from a very slight amount to enough to even

kill the animal. This variation in the amount of germs can not be controlled nor can the amount of immunity produced be known. One must expect a large amount of variation when one depends on the growth of the germ in the animal for the production of immunity. If it could be done, it certainly would be much more satisfactory to inject an animal with a definite amount of some dead germ product, which, by its absorption, would produce immunity, than to depend on the growth of the germs in the body. Not only would the resulting immunity be more uniform and certain, but it would be entirely without danger to the animal—in marked contrast to vaccination with attenuated cultures of anthrax where the death-rate, especially among sheep, is so high as to make its use very unsatisfactory.*

"ANTHRAXOIDS."

The Department of Medical Research of Parke, Davis & Co., has been at work on this problem of producing a satisfactory dead anthrax vaccine for several years, and at last, apparently, has solved it. The product, which is known as Anthraxoids, contains no live anthrax germs. It is put up in the form of small pellets which are injected under the skin by a special injector. Here they are rapidly disintegrate, and, by their absorp-

our animals from anthrax resolves itself into this: Shall we infect them with an attenuated culture of anthrax and chance their multiplying sufficiently to produce the required immunity, but not enough to kill the animal, or shall we inject them with a definite amount of the immunity-producing substance?? There ought not to be any doubt as to the answer.

Horticulture

How to Grow Better Fruit.

The great need of the present time is not that the growers shall produce more fruit, but that they shall produce better fruit—or to put it another way, that they shall produce more fruit of superior quality. We don't fear over-production of any fruit crop which can be marketed over a long period of time, like apples, if the quality is right. But the experience of the season just closing has demonstrated that a very small quantity of low-grade fruit is entirely too much.

How shall better fruit be grown? We are speaking of apples, especially. Let us quote from Professor Gould, who is in charge of fruit district in-

THE KANSAS FARMER MADE HIM.

Farmer boys and girls, who read the following letter from one of your number, you can do as well, and you can help your friends to do as well. Write The Kansas Farmer Company for our list of premiums and we will help you. Here is the letter:

"I found The Kansas Farmer a most useful farm paper and with the knowledge acquired from it, together with the Kansas Experiment Station bulletins and my home training on the farm I was enabled to pass a civil service examination and receive an appointment in the Government agricultural service.

"The farmer who plods along in his grandfather's steps, does not keep up-to-date by reading the best farm papers and applying the knowledge thus gained could not pass this examination.

"The Kansas Farmer first gave me the desire for more knowledge of up-to-date farming.

Respectfully,

"WM. MORTON."

tion, produce immunity. The process apparently causes the animal no inconvenience—there is no loss of appetite or other signs of sickness, nor is there swelling or tenderness at the point of injection.

Extensive experiments have been carried out to demonstrate the value of this product. Horses, cattle, and sheep in considerable numbers have been vaccinated with these Anthraxoids, and, after a suitable time, have been inoculated with a live, virulent culture of anthrax. The results of these tests show that the animals are protected for several months against an infection which promptly kills an unvaccinated animal. Field tests have also been made, and large numbers of animals, after being vaccinated, have been allowed to run on infected pastures without suffering the death losses shown by unvaccinated animals.

RECENT ADVANCES IN IMMUNITY.

Although this product is somewhat of a departure in the veterinary field, it is not without parallel in modern scientific medicine. The soldiers of the British army, before proceeding to the tropics, are injected with killed cultures of typhoid germs, and are thereby rendered much less liable to acquire typhoid. The armies of other European countries have adopted similar measures, and the results are highly satisfactory. Sir A. E. Wright's now famous Opsonic Therapy is based on the same principle. In diseases where there is an inadequate absorption of the caustive germ or its products, Wright has achieved great success by injecting the patient with a killed culture of the germ in question. By the absorption of the injected germs the patient's resistance to that germ is increased and his recovery hastened.

The question of how best to protect

*Various attempts have been made along this line for tuberculosis. Koch, in his new tuberculin, depends on the mechanical disintegration of the dry germs by grinding and Behring extracts the immunity-producing substance by mechanical means.

vestigations of the United States Department of Agriculture, and whose work takes him into every orchard section of America. He is a keen observer, and what he says may be accepted as coming from one who knows. He says:

"As a general proposition, the growing of better fruit means greater attention to details—more thorough cultivation, more pruning, a more liberal use of fertilizers, more spraying, more everything that contributes to the improvement of orchard conditions. In the case of some orchards it may mean the complete abandonment of them as such, digging them up, and starting new ones in locations better adapted to orchard purposes. In all sections where I go I see orchards which can never be made profitable because of their location. Poor atmospheric drainage is perhaps the most common fault where the locations are faulty. Good atmospheric drainage is perhaps more important than good soil drainage; at least, in this respect, that it is more often possible to correct poor soil drainage than it is to improve improper air drainage.

"But all sorts of obstacles are raised against these more intensive methods. Perhaps the most universal one is lack of time in view of the demands of other farm work. And right here is the difficulty. A great majority of farmers are attempting to do a few things on too large a scale. They are spreading their efforts over too much ground. Do not misunderstand me on this point. I am not trying to discount the large farms, the large enterprises, nor the large orchards, but I would, in my scheme of management, limit the size of an orchard to that which comes within the ability of its owner to handle it by intensive methods. The experience is multiplied times almost without number that the orchard is made to wait for attention until other farm work has been done. But if the orchard is maintained as a source of revenue in a system of general farming, I venture the assertion

(Continued on page 964.)

DISPERSION SALE

OF

Registered Hereford Cattle

Cedar Point, Kans., Thursday, Sept. 24, 1908

My Entire Herd of

120-Thoroughbred Herefords-120

Consisting of 6 topdy yearling bulls and my 3-year-old herd bull Quick, 87 extra good cows and helpers from 1 to 6 years old, and 27 lusty, well grown calves. These cattle are choice individuals and richly bred, tracing to such sires as Anxiety 4th, Lamplighter, Don Carlos, Corrector, Peerless Wilton, and Garfield; and comprise the best foundation animals from the well known herds of Howe & Son and I. E. Lambert of Emporia, which I bought last spring, but am now selling because I can not get the right kind of help to properly care for them. This will be a complete dispersal of this great herd. All will be sold at public auction to the highest bidders, without reserve. My offering comprises some of the best foundation females, and will afford a great opportunity to breeders.

I will also sell 10 head of good horses and colts, and a few registered Berkshires. Sale will commence promptly at 10 a. m. and will be held at the ranch 2 miles south of Cedar Point, Kans.

For catalogues and information address,

F. M. STRUBE, Cedar Point, Kans.

Col. R. E. Edmondson and John J. McLinden, Auctioneers.

REGISTERED

POLAND=CHINAS

AT AUCTION

A. K. Sells' sale of 44 head of mature stuff and 50 early spring pigs at the farm 3 miles from

Fredonia, Kans., Thursday, Sept 24, 1908

20 choice proven sows, most of them bred.

8 extra good, bred fall yearling gilts.

10 fall yearling gilts sold open.

6 young herd headers, and 50 early spring pigs, the tops of my entire crop will be sold in lots to suit purchasers. Some of the best and most popular blood lines of the breed are represented, such as Meddler, Corrector 2d, Meddler 2d, Chief Perfection 2d, Ideal Sunshine, Luster Sunshine, and

Will be Sold at the Public's Own Price

Sale will begin at 1 p. m. sharp, and will be held at the farm under cover. Parties from a distance stop at the Western Hotel at my expense. Free conveyance to the farm. Send bids to L. K. Lewis in my care. For catalogue and information address

A. K. SELL, Fredonia, Kans.

Cels. Snyder and Sheets, Auctioneers.

The Chicago House Wrecking Co.

There has grown up in the city of Chicago an unique business which has assumed tremendous proportions. The Chicago House Wrecking Company is just what its name indicates and more. It buys buildings of any kind that are to be destroyed for some purpose, tears them down, saves the lumber, doors, windows, water pipes, bath tubs, etc., and, after sorting, sells this material at a low rate. If a water pipe is rusted or broken this company cuts out the bad parts, cuts new threads and sells it just as good as new, only in shorter lengths. If an enameled bath tub has the enamel chipped this is repaired and the tub sold as good as ever but cheaper. It is the same way with lumber. It will all be good but may be of shorter lengths. The Chicago House Wrecking Co. is not a mail order house though it does issue an enormous catalogue for the benefit of those customers who can not go to Chicago to select what they want. This great company which is located at Thirty-fifth and Iron Ave., Chicago, first sprang into special prominence in 1893, when it bought the World's Fair buildings at Chicago. Since then it has bought the buildings of practically all of the great World's Fairs in this country, including St. Louis.

It is always equipped with practically everything that one could need for the erection, remodeling, or finishing of any kind of building. Read their big advertisement on the last page of this issue and ask them for their big catalogue. Please mention THE KANSAS FARMER.

The Handy Man—His Ability Due Largely to the Possession of Proper Tools.

Every one knows the handy man and envies his ability to do any kind of work. If he wants some improvements made in his home or farm, he does the work himself and while most people would be waiting for a carpenter or a mason, a plumber, or a gas fitter, he has the job done and done to suit him exactly.

If you investigate you will find that he has a very complete outfit of tools, that whatever he undertakes he has just the proper tools for the job.

Look over your own tool-kit. Could your handy man make out with them? In nine cases out of ten it is the tools not the man, or rather, the handy tools make the handy man.

It is the simplest thing in the world to supply yourself with a complete set of fine tools, each the very best of its kind. Just buy one of the Keen Kutter Tool Cabinets.

Every tool in these cabinets belongs to the famous guaranteed brand of Keen Kutter tools. No other cabinets offered for sale contain a complete set of high grade tools all under the same name, trade-mark and guarantee. No expert could buy a better set of tools, for better tools are not made. The trade-mark on each tool protects you against bad luck, for if anything should go wrong you can have your money back or another tool to replace the one returned.

Keen Kutter Tool Cabinets contain large and small assortments of tools to suit different needs, and range in price from \$8.50 to \$85. Each tool in the cabinets has a special rack or hook of its own which keeps it from being damaged by contact with the others. Drawers are well supplied with little helps and essentials that are apt to be overlooked until you are in the midst of your work—glue, sandpaper, tacks, nails, screws, wire, clamps.

Keen Kutter Tool Cabinets contain saws, brace, bits, chisels, gimlets, awls, planes, hammers, files, pliers, screwdrivers, wrenches, nail sets, reamers, rules, squares—in fact, everything necessary for good work.

For sale at the leading hardware stores. If not at your dealer's, write to Simmons's Hardware Company, (Inc.) St. Louis and New York, U. S. A.

A Book of Especial Interest to Farmers.

One of the most interesting, entertaining, and instructive books which we have seen, and one which should be of especial interest and value to farmers and agricultural people, is a cloth bound volume of 175 pages on the subject of "Weather."

Its contents are devoted to the subject of weather and weather instruments, profusely illustrated and written in simple language which is easy to understand. The topics include a wide range of information on subjects which are usually considered of a scientific character, but which are in reality of common interests and something which every one should be familiar with. For instance, there are chapters on the winds, heat, lightning, rainfall, the formation of snow, dew and frost—this latter, by the way, should be of essential interest as it tells the nature of frost and the signs indicating its appearance—fogs and their cause, clouds, dust storms, etc.

It also explains the use of the more common instruments used for measuring temperature, moisture, and wind velocity, showing how to read the maps issued by the United States Weather Bureau and explaining the method of determining weather forecasts as used by this branch of our government service.

"THE OLD RELIABLE"

DIETZ
LANTERNS

THERE ARE NONE "JUST AS GOOD"
WHEN YOU BUY A LANTERN INSIST ON A "DIETZ"

MADE BY R. E. DIETZ COMPANY NEW YORK
Largest Makers of Lantorns in the World
ESTABLISHED 1846
PIONEERS AND LEADERS

ice. It also tells how anyone can forecast the weather for himself to a reasonable certainty by observing the signs in nature. As for instance, the color of the clouds—the way the garden spiders spin their webs—the appearance of the sky—the direction of the wind, and many other exceedingly interesting and yet very common things that one sees every day, but is unconscious of their significance unless informed on the subject.

There are numerous illustrations showing the different kinds of barometers, thermometers, wind instruments, hygrometers, etc., together with an explanation of their use. There is a very interesting chapter on humidity, which tells all about this very uncomfortable but very necessary atmospheric condition and explains why we feel cool when the breeze strikes us on a hot day. It explains the cause and function of dust storms besides giving a great deal of other interesting and valuable information which could be made use of to great advantage by our agricultural friends.

The book is published by the Taylor Instrument Companies, manufacturers of weather instruments, Rochester, N. Y., and should be in the home of every farmer.

"Kemp's Triumph" Spreader to Be Manufactured in Waterloo.

At the George Huntington dairy farm on the Black Hawk road, says the Waterloo (Iowa) Courier, there is being tested out a manure spreader which appears to the Courier reporter as being just as far ahead of any manure spreader now in use, as are the present all steel twine binders ahead of the old wooden frame harvesters.

This new improved machine is a decided novelty in that the material is pulverized and delivered at the forward and back of the axle instead of at the rear of the machine. The advantages in favor of the front delivery are lightness of stopping the apron while the beater tions, cut under truck, and for reason of having a covered beater the use of the machine in windy weather or as a lime distributor is practicable.

In this new machine the top of the box will be less than 40 inches from the ground as compared with 54 inches in others. This is a decided advantage over other machines on the market.

Although a model of strength and simplicity the machine has valuable features not found in others, having more weight and double the number of parts. Perhaps the very best feature is the complete control of the apron which can be run forward or back, either empty or loaded. This permits of stopping the apron while the beater remains in full operation, or if desired the operator can run the load back from the beater and then start the machine in operation, thereby avoiding partial unloading of the material in large chunks when first starting up, which is a great drawback in other spreaders. The apron is thrown out of gear automatically after the load is distributed and also when it is returned for filling the box.

The machine is made to spread just 44 inches wide, which meets the demand for top dressing on corn, and provides a spreader easily handled with two horses.

This spreader is made under patent No. 818098, dated April 17, 1906, and issued to Joseph S. Kemp, of Newark Valley, N. Y., who is recognized everywhere as the "Father of manure spreaders." In fact, Mr. Kemp regards it as the triumph of his life work.

In conversation with one of the officers of the J. S. Kemp Company this morning he stated that the Kemp company controlled the factory, the valuable front delivery "Kemp" patents, and all trade marks, etc., ever owned by the J. S. Kemp Manufacturing Company, and it was the intention to make the "Kemp's Triumph" spreaders in quantities just as soon as the lease on the factory expires next December.

This officer of the company also called the attention of the Courier representative to the fact that the spreader was a combined spreader and farm truck, and although a standard complete spreader in appearance, all of the mechanism was on the spreader frame, which could be removed and the trucks used the year round for general hauling; also that the spreader can be attached to the running gear of any wagon or farm truck, so that as a matter of fact the J. S. Kemp Manufacturing Company will furnish a manure spreader, which, on account of the combination feature, will cost the farmer just about one-half the price he is now obliged to pay for other spreaders of the same capacity.

The company will also make a specialty of manufacturing a cheap and simple device which enables one man to easily remove the spreader from the truck and which can be utilized for handling wagon boxes and hay racks.

It is the purpose of the Kemp Manufacturing Company to sell the new "Triumph" spreaders direct to the dealers by mail. This will effect a big saving in advertising, which, combined with the low factory cost, will enable the dealer to successfully meet the prices of any catalogue merchant or mail order factory selling direct to the consumer. It is this system of buying which the dealer must adopt in order to exist.

Get These Books on Fertilizing and Bigger Crops.

Write to the American Harrow Company of Detroit and get their literature free on fertilizing for bigger crops including their catalogues about Standard American manure spreaders and their famous Detroit tongueless disk harrows.

Find out how one man with an American spreader saves half the time and expense and spreads manure properly for bigger crops than is possible by hand. Get all facts on the fertilizing subject prepared by the best authorities. Just say you are a reader of this paper to get free either or both catalogues on the American manure spreader and Detroit tongueless disk harrow.

The Roof that Needs No Painting.

Amatite ROOFING

Yes, I'm re-covering every roof on the place with Amatite

WHEN you once put Amatite on one of your buildings you will be impatient to get it on all the others. That is the experience of everyone who uses it, because Amatite is its own best advertisement.

Not only is the first cost of Amatite low, but its real mineral surface does away with all the bother and expense of painting.

Once you have finished nailing down Amatite according to directions, you have a roof that will give protection for many years and which will require no attention whatever to insure it from leaks and trouble.

The busy farmer of to-day cannot afford to have his stock and farm products suffer because of leaks, nor can he spend time on repairs and painting.

For these reasons thousands of successful farmers all over the country are buying Amatite. They realize that painted roofings are out of date.

Amatite is as far ahead of the "painted roofings" as the farm implements of to-day are in advance of those used by our grandfathers.

FREE SAMPLE

To the progressive farmer we say—Send for a Free Sample to-day and get in touch with the best ready roofing made.

BARRETT MANUFACTURING COMPANY

New York	Chicago	Philadelphia	Boston
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Kansas City	Minneapolis	New Orleans	London, Eng.

TRADE MARK **B**

THE BANNER RIDING ATTACHMENT

Will fit on any right or left hand wood or steel beam walking plow, lister, sod breaker, middle breeder or harrow. ALL OF THIS WITH THE SAME ATTACHMENT. A wrench all the tool for attaching. Is regulated by levers, same as a regular riding plow. Plow or lister may be adjusted to depth from 1 to 12 inches, and from 8 to 24 inches width. Lifts point out of the ground for moving. Made of malleable iron and steel; no wood or hard castings. 26-inch wheel with removable box. 2-inch oval tire, 1 1/4 inch solid steel axles, steel levers, pressed steel seat—the best material used throughout. Weight complete 110 lbs., and will cause plow or lister to stay in as hard ground and do as good work as any riding plow or lister. 25,000 now in use. WE GUARANTEE EVERY ONE. WE WANT AGENTS, and prefer men who use plows. Write for the agency and get our SPECIAL PRICE.

The Implement & Manufacturing Co., Coffeyville, Kans.

ALFALFA SEED

OUR SPECIALTY. We are headquarters for this kind of Forage Plants and furnish vigorous seed in car load or bushel lots. Write us for prices and samples.

McBETH & DALLAS, Garden City, Kans.

Also most liberal thirty days test offer and price proposition for these highest quality machines, which come within the range of every practical man's pocketbook and needs. Address to-day the American Harrow Company, 1011 Hastings St., Detroit, Mich.

Useful Roofing Information.

Anyone who is considering the roofing proposition should secure the booklet on Amatite which has just been published. This booklet is full of practical information. It gives pointers that will enable you to know what's what in the roofing line. This booklet is published by the oldest roofing manufacturers in the country and may be relied upon for accuracy. It is mailed free to anyone sending their name and address. A sample of Amatite, with its mineral surface, which has made such a success as a lasting protection against the weather, is also sent with the booklet. Both are free and are well worth inspecting.

Address nearest office of the Barrett Manufacturing Company, New York, Chicago, Philadelphia, Boston, St. Louis, Cleveland, Pittsburg, Cincinnati, Kansas City, Minneapolis, New Orleans.

When writing our advertisers please mention this paper.

TENTH ANNUAL American Royal Live Stock Show

Kansas City Stock Yards, Oct. 12-17, 1908.

Annual shows of the National pure-bred Beef Cattle, Draft Horse, Sheep, Swine and Angora Associations.

America's Greatest Live Stock Exhibition

Public sale of Herefords, Oct. 13; Gallows, Oct. 14; Aberdeen-Angus, Oct. 15, and Shorthorns, Oct. 16.

Ask for catalogue.

A. M. THOMPSON, Secretary
Live Stock Exchange,
Kansas City, Mo.

PURE-BRED STOCK SALES.

Shorthorns.

Sept. 10.....H. K. Frantz, University Place, Neb., at State Fair Grounds.
Sept. 23.....S. W. Hogate, Bladen, Neb.
Sept. 23.....H. H. Hess, Surprise, Neb.
Oct. 5.....A. O. Stanley, Sheridan, Mo.
Oct. 10.....J. F. Robinson, Weota, Ia.
Oct. 22.....W. C. Meyers, Carroll, Iowa
Oct. 22.....O. A. Sundeman, Madison, Neb.
Nov. 11.....A. C. Shallenberger, Alma, Neb., and Thos. Andrew & Son, Cambridge, Neb., at Cambridge.
Nov. 12.....L. N. Goudy, Hastings, Neb.
Nov. 13.....H. B. and C. W. Francisco, Hastings, Neb.
Dec. 17.....John Frick, Manning, Iowa
Nov. 23.....B. D. Ludwig, Sabetha, Kan.
Nov. 23.....J. W. Knowles & Son, Craig, Neb.
Feb. 16.....J. F. Stodder, Wichita, Kan.
Feb. 17.....J. C. Robinson, Mgr., Wichita, Kan.

Herefords.

Sept. 15, 16.....J. F. Gulick, Jasper, Mo.
Sept. 23.....Jesse Engle, Sheridan, Mo.
Sept. 23.....Mrs. S. W. Hudson, Sibley, Mo.
Oct. 15.....R. N. Lewis estate, Bladen, Neb.
Oct. 25, 27.....Chas. Richie, W. B. Stine, Mgr., Surprise, Neb.
Mar. 3, 4.....Dispersion sale of Cornish & Patten Herefords at Osborn, Mo., to settle Patten's estate.

Red Polls.

Oct. 7.....J. B. Davis, Fairview, Kan.
Aberdeen-Angus.
Oct. 21.....J. Auracher, Shenandoah, Iowa
Oct. 21.....J. M. Hathaway, Turin, Ia.
Oct. 23.....Isenbarger Bros., Battle Creek, Mich.
Nov. 6.....Dispersion of Anderson & Findlay herd at Iowa, Kan., W. C. McGavock, Mgr., Springfield, Ill.

Jerseys.

Oct. 12.....J. B. Givens, Watonga, Okla., at Oklahoma City.
Oct. 20.....Kinloch Farm, Kirksville, Mo.

Poland-Chinas.

Sept. 9.....R. E. Maupin, Pattonsburg, Mo.
Sept. 11.....J. F. Thomas, Maple City, Kan.
Sept. 12.....Ed McDaniel, Parsons, Kan.
Sept. 23.....Knorpp Bros., Pleasant Hill, Kan.
Sept. 24.....A. K. Sell, Fredonia, Kan.
Sept. 26.....J. A. Jenkins, Conway Springs, Okla.
Sept. 26.....P. L. Clay, Broken Arrow, Okla.
Sept. 28.....W. L. Wright, Jr., Maryville, Mo.
Sept. 29.....J. H. Harvey & Son, Surprise, Neb.
Sept. 30.....H. H. Hess, Surprise, Neb.
Sept. 30.....B. H. Colbert, Tishomingo, Okla.
Oct. 1.....W. J. Wright, Jr., Rosendale, Mo.
Oct. 1.....W. W. Wheeler, Harlan, Iowa.
Oct. 2.....J. M. Devlin, Cameron, Mo.
Oct. 3.....Lee Stanford, Lyons, Kan.
Oct. 3.....Andrews Stock Farm, Kearney, Mo.
Oct. 3.....D. C. Loneragan, Florence, Neb.
Oct. 5.....L. D. Arnold, Enterprise, Kan.
Oct. 5.....E. A. Vanscoy, Mont Ida, Kan.
Oct. 5.....A. O. Stanley, Sheridan, Mo.
Oct. 6.....R. H. Hargrove, Sharon, Kan.
Oct. 6.....J. D. Spangler, Elmo, Kan.
Oct. 6.....J. A. Miller, Hamilton, Mo.
Oct. 7.....F. E. Hazen, Hollis, Kan.
Oct. 9.....Delos Bros., Louisburg, Kan.
Oct. 9.....Berkey Bros., Fairview, Kan.
Oct. 9.....Ellis Zimmerman, Norton, Kan.
Oct. 10.....Croft & Drummond, Norton, Kan.
Oct. 10.....H. H. Harshaw, Butler, Mo., at Harrisonville, Mo.

Oct. 10.....C. D. Swain, Robinson, Kan.
Oct. 10.....A. & P. Schmidt, Alma, Kan.
Oct. 12.....Fred Collet, Lincolnville, Neb.
Oct. 12.....Fred Willie, Columbus, Mo.
Oct. 12.....E. E. Axline, Oak Grove, Mo.
Oct. 12.....D. A. Moats, Polo, Mo.
Oct. 12.....Andrew Johns, Rosendale, Mo.
Oct. 13.....H. A. Crawford, itea, Mo.
Oct. 13.....O. E. Wade, Rising City, Neb.
Oct. 14.....W. V. Hope & Son, Steha, Neb.
Oct. 14.....G. W. Allen, Tonganoxie, Kan.
Oct. 15.....Frank Davis & Son, Holbrook, Neb.
Oct. 15.....Robert Greer, Ramona, Kan.
Oct. 15.....W. R. Webb, Bendena, Kan.
Oct. 15.....W. O. Golde, Scribner, Neb.
Oct. 15.....M. W. Adamson, Lincoln, Kan.
Oct. 15.....Thos. Collins, Lincoln, Kan.
Oct. 15.....G. E. Hayden & Son, Newkirk, Okla.
Oct. 16.....E. A. Herbert, Burchard, Neb.
Oct. 16.....G. M. Hull, Jamesport, Mo.
Oct. 17.....H. L. Faulkner, Hiawatha, Kan.
Oct. 17.....Scott & Singer, Hiawatha, Kan.
Oct. 19.....W. H. Griffiths, Clay Center, Kan.
Oct. 19.....Hermant Gruninger, Bendena, Kan.
Oct. 19.....W. E. Adams, Elk Falls, Kan.
Oct. 19.....L. P. Fuller, Morrowville, Kan.
Oct. 20.....L. R. Enos, Lost Springs, Kan.
Oct. 20.....S. U. Peace, Princeton, Mo.
Oct. 20.....Jno. McKelvie, Dawn, Mo.
Oct. 20.....J. L. Darst, Huron, Kan.
Oct. 20.....Bolton & Aaron, Leavenworth, Kan.
Oct. 20.....Davidson & Chrysler, Sedalia, Mo.
Oct. 20.....G. M. Headley, Fairview, Kan.
Oct. 21.....Walter Hilwell, Pawnee City, Neb.
Oct. 21.....John Blain, Pawnee City, Neb.
Oct. 21.....Leo Calhoun, Potter, Kan.
Oct. 21.....Jno. Blaine, Pawnee City, Neb.
Oct. 21.....Jno. A. Hale, Cameron, Mo.
Oct. 21.....W. H. Bullen & Son, Belleville, Kan.
Oct. 22.....W. H. Hays, R. 2, Vermillion, Kan.
Oct. 22.....C. Hays, R. 2, Vermillion, Kan.
Oct. 23.....Hayes & Gibbs, Hiawatha, Kan.
Oct. 23.....F. D. Faley, Abilene, Mo.
Oct. 23.....A. P. Young, Lexington, Mo.
Oct. 23.....Carl Jensen & Son, Guide Rock, Neb.
Oct. 23.....S. W. Coleman, Sedalia, Mo.
Oct. 23.....Everett Hayes, Hiawatha, Kan.
Oct. 24.....Stedens Stock Farm, Marshall, Mo.
Oct. 24.....F. Walker, Alexander, Neb., at Fairbury, Neb.
Oct. 24.....J. H. Hamilton & Son, Guide Rock, Neb.
Oct. 24.....Gelschick, Wittrock & Wyatt, Falls City, Neb.
Oct. 24.....B. T. Wray & Sons, Hopkins, Mo., at Maryville, Mo.

Oct. 26.....Geo. J. Hibbs, Pattonsburg, Mo.
Oct. 26.....D. S. Weir, Clay Center, Kan.
Oct. 26, 27.....W. B. Stine, Mgr., Surprise, Neb.
Oct. 27.....C. E. Tennant, New Hampton, Mo.
Oct. 27.....Logan & Gregory, Beloit, Kan.
Oct. 27.....W. H. Johnston, Frankfort, Kan.
Oct. 27.....Homer L. McKelvie, Fairfield, Neb.
Oct. 27, 28.....W. B. Stine, Mgr., Surprise, Neb.
Oct. 27, 28.....W. B. Stine, Mgr., Surprise, Neb.
Oct. 28.....F. Miller and E. J. Hayes, York, Neb.
Oct. 28.....Cavett Bros., Phillip, Neb.
Oct. 28.....R. E. Maupin, Pattonsburg, Mo.
Oct. 28.....C. H. Pilcher, Glasco, Kan.
Oct. 29.....Thos. Shattuck, Hastings, Neb.
Oct. 29.....W. H. Lake, Hampton, Mo.
Oct. 29.....F. D. Fulkerson, Brimson, Mo.
Oct. 29.....Thos. F. Miller & E. J. Hayes, York, Neb.

Oct. 29.....Klaus Bros., Bendena, Kan.
Oct. 30.....J. H. Lovell, Hastings, Neb.
Oct. 30.....Geo. W. McKay, Laredo, Mo.
Oct. 31.....F. D. Page, Orrick, Mo.
Nov. 4.....Henry Metzinger & B. F. Porter, Caldwell, Kan.
Nov. 5.....John Book, Talmage, Kan.
Nov. 5.....C. S. Nevius, Chiles, Kan.
Nov. 6.....J. E. Bowser, Abilene, Kan.
Nov. 6.....J. E. Summers, Clifton Hill, Mo.
Nov. 6.....Kivett Bros., Burr Oak, Kan.
Nov. 7.....W. B. Hayden, Campbell, Neb.
Nov. 7.....Shipley Bros., Grant City, Mo.
Nov. 7.....D. C. Stayton, Blue Springs, Mo.
Nov. 7.....Stryker Bros., Fredonia, Kan.
Nov. 9.....Herbert Griffith, Clay Center, Kan.
Nov. 10.....Anton Roessler, Wilcox, Neb.
Nov. 10.....N. E. Copeland, Waterville, Kan.
Nov. 10.....Ayth L. Perrin, Buckner, Mo.
Nov. 10.....H. R. Harshaw, Butler, Mo.

Nov. 11.....Albert Smith & Son, Superior, Neb.
Nov. 11.....J. W. & H. F. Pelphrey & Sons and Jewell Bros., at Humboldt, Kan.
Nov. 12.....L. N. Goudy, Hastings, Kan.
Nov. 12.....Schneider & Moyer, Norton, Kan.
Nov. 12.....J. R. Sparks, Hunter, Okla.
Nov. 13.....Frank Zimmerman, Centerville, Kan.
Nov. 13.....J. W. Pelphrey & Son, Humboldt, Kan.

Nov. 13.....Francisco Bros., Hastings, Neb.
Nov. 14.....E. Bundy & S. N. Hodgson, Park-er, Kan.
Nov. 14.....Geo. B. Rankin, Marion, Kan.
Nov. 16.....Wm. Wingate, Trenton, Mo.
Nov. 17.....C. G. Mills, Pleasant Hill, Mo.
Nov. 17.....W. R. Crowther, Golden City, Mo.
Nov. 18.....Geo. F. Beezley, Girard, Kan.
Nov. 18.....Leyhe & Purcell, Marshall, Mo.
Nov. 19.....Sensintaffer Bros., Brookfield, Mo.
Nov. 20.....Edw. Goodspeed, Independence, Mo.
Nov. 21.....W. L. Gates, Sheridan, Mo.
Nov. 22.....Goodrich Stock Farms, Eldon, Mo.
Nov. 23.....J. J. Roy, Pevk, Kan.
Nov. 23.....F. A. Dawley, Waldo, Kan.
Nov. 24.....A. P. Wright, Valley Center, Kan.
Nov. 25.....F. F. Oerly, Oregon, Mo.
Nov. 25.....F. G. Niese & Son, Goddard, Kan.
Nov. 26.....D. E. Crutcher, Drexel, Mo.
Nov. 27.....J. H. Harvey & Son, Maryville, Mo.
Nov. 27.....T. P. Sheehy, Hume, Mo.
Nov. 28.....J. D. Willifong, Zeandale, Kan., at Manhattan, Kan.

Nov. 28.....C. T. Coates, Cleveland, Okla.
Dec. 5.....G. W. Roberts, Larned, Kan.
Dec. 7.....H. N. Holdeman, Meade, Kan.
Dec. 15.....Frank Huddleston, Ado, Okla.
Jan. 19.....A. W. Shriver, Cleveland, Kan.
Jan. 19.....T. A. McCandless, Bigelow, Kan.
Jan. 19.....A. W. Shriver, Cleveland, Kan.
Jan. 21.....J. H. Harshaw, Butler, Mo., at Sedalia, Mo.
Jan. 25.....Frank Michael, Erie, Kan.
Jan. 25.....Homer L. McKelvie, Fairfield, Neb.
Jan. 28.....W. H. Johnston, Frankfort, Kan.
Feb. 3.....F. G. Niese & Son, Goddard, Kan.
Feb. 4.....W. V. Martin, Anthony, Kan.
Feb. 4.....W. V. Sheldon, Wichita, Kan.
Feb. 4.....Kivett Bros., Burr Oak, Kan.
Feb. 9.....Henry Metzinger and B. F. Porter, Caldwell, Kan.

Feb. 10.....W. W. Wheeler, Harlan, Iowa.
Feb. 10.....Albert Smith & Son, Superior, Neb.
Feb. 10.....Lemon Ford, Minneapolis, Kan.
Feb. 11.....C. S. Nevius, Chiles, Kan.
Feb. 12.....Geo. Wedd & Son & C. S. Nevius, at Spring Hill, Kan.
Feb. 12.....D. A. Wolfersperger, Lindsey, Kan.
Feb. 13.....Thos. F. Walker, Alexander, Neb., at Fairbury, Kan.
Feb. 13.....Frank Georgia, Mankato, Kan.
Feb. 17.....John Book, Talmage, Kan.
Feb. 17.....C. Larrimer, Wichita, Kan.
Feb. 18.....J. B. Bower, Talmage, Kan.
Feb. 18.....J. C. Larrimer, Wichita, Kan.
Feb. 18.....J. W. Hoyle, Dwight, Kan.
Feb. 22.....W. C. Topliff, Eason, Kan.
Feb. 24.....Logan & Gregory, Beloit, Mo.
Feb. 25.....H. H. Harshaw, Butler, Mo.
Feb. 25.....W. A. Prewett, Asherville, Kan.
Feb. 26.....C. H. Pilcher, Glasco, Kan.

Duro-Jerseys.

Sept. 24.....J. W. Taylor, Edwardsville, Kan.
Sept. 29.....J. L. Williams, Bellaire, Kan.
Sept. 29.....W. H. Cummings & Son, Tecumseh, Neb.
Sept. 29.....S. W. Hogate, Bladen, Neb.
Sept. 30.....John Showalter, Cook, Neb.
Oct. 1.....Dittmars Bros., Turney, Mo.
Oct. 1.....C. W. Buck and W. F. Waldo, DeWitt, Neb.

Oct. 6.....Ford Skeen, Auburn, Neb.
Oct. 6.....N. J. Fuller, Garnett, Kan.
Oct. 7.....J. B. Davis, Fairview, Kan.
Oct. 7.....W. H. Dittenderfer, Lost Springs, Kan.
Oct. 7.....W. J. Staadt, Ottawa, Kan.
Oct. 7.....W. M. Putnam & Son, Tecumseh, Neb.
Oct. 8.....F. J. Miller, Wakefield, Kan.
Oct. 9.....C. R. Green, Spring Hill, Kan.
Oct. 9.....F. C. Crocker, Filley, Neb.
Oct. 10.....S. W. Hogate, Bladen, Neb.
Oct. 14.....W. G. Unitt, Seward, Neb.
Oct. 16.....Lynch & Addy, at Independence, Mo.
Oct. 16.....Forest Ray, Sheridan, Mo.
Oct. 17.....J. E. Constant, Grant City, Mo.
Oct. 17.....J. E. Ellsworth, Formosa, Kan.
Oct. 19.....John Morrison, College View, Neb.
Oct. 19.....Sweany, Sutton, Neb.
Oct. 20.....G. Van Patten, Sutton, Neb.
Oct. 20.....J. E. Larne, Lyons, Neb.
Oct. 21.....Geo. Briggs & Sons, Clay Center, Neb.
Oct. 21.....L. D. Ludwig, Sabetha, Kan.
Oct. 21.....S. Larowe, Miltonvale, Kan.
Oct. 21.....Pearl H. Pagett, Beloit, Kan.
Oct. 22.....Ola Nordstrom, Clay Center, Kan.
Oct. 22.....W. T. Hutchinson, Cleveland, Mo.
Oct. 22.....H. G. Warren, Inland, Neb.
Oct. 23.....Hopkins Bros. & Sanstead, Holdrege, Neb.

Oct. 23.....J. C. Monk, Ridgeway, Mo.
Oct. 24.....O. G. Smith & Son, Kearney, Neb., and Ross R. Steele, Wood River, Neb., at Wood River.
Oct. 26.....Watts & Dunlap, Martin City, Mo., at Independence, Mo.
Oct. 27.....E. S. Watson, Torney, Mo.
Oct. 27.....R. B. Adams & Son, Thayer, Kan.
Oct. 27.....O. N. Wilson, Silver Lake, Kan.
Oct. 27.....Geo. Davis & Son, Mulford, Neb.
Oct. 28.....S. A. Hands, Thayer, Kan.
Oct. 28.....Davis & Son, Mulford, Neb.
Oct. 28.....Grant Chaplin, Green, Kan., at Manhattan, Kan.
Oct. 28.....W. H. Wheeler & Sons, and W. H. Miller, Cameron, Mo.
Oct. 29.....Chas. Leibhart, Marquette, Kan.
Oct. 29.....G. W. Colwell, Sumnerfield, Kan.
Oct. 29.....Geo. M. Hammond & K. S. A. C., Manhattan, Kan.

Oct. 30.....Thompson Bros., Garrison, Kan.
Oct. 30.....Burton Hain, Norton, Kan.
Oct. 30.....J. E. Rowe, Stockham, Neb.
Oct. 31.....E. C. Gwinner, Holdrege, Neb.
Oct. 31.....J. E. Joines, Clyde, Kan.
Oct. 31.....E. M. Meyers, Burr Oak, Kan.
Nov. 3.....R. M. Myers, Burr Oak, Kan.
Nov. 4.....R. M. Wilson, Chester, Neb.
Nov. 4.....F. G. McDowell, Goff, Kan., at Cornland, Kan.
Nov. 4.....B. F. Porter, Mayfield, Kan., at Caldwell, Kan.
Nov. 4.....H. Metzinger, Caldwell, Kan.
Nov. 5.....J. F. Stodder and Marshall Bros., Burden, Kan.
Nov. 6.....B. F. Porter, Caldwell, Kan.
Nov. 6.....B. F. Roberts and Harter, Hebron, Neb.

Nov. 6.....Coppins & Worley, Potwin, Kan.
Nov. 9.....L. R. Murphy, Savannah, Mo.
Nov. 10.....W. L. Addey & Son, Parnell, Mo.
Nov. 10.....Rinehart & Slagle, Smith Center, Kan., and W. C. Whitney, Agra, Kan., combination sale at Smith Center.
Nov. 11.....Samuel Drybread, Elk City, Kan.
Nov. 11.....Chester Thomas, Waterville, Kan.
Nov. 11.....J. W. Beauchamp, Bethany, Mo.
Nov. 12.....Frank Drybread, Elk City, Kan.
Nov. 12.....Ellis F. Hopkins, Ridgeway, Mo.
Nov. 13.....T. I. Woodall, Fall River, Kan.
Nov. 17.....L. D. Padgett & Segrist, Beloit, Kan.
Nov. 17.....S. Aikin, Parsons, Kan.
Nov. 21.....Lant Bros., Parsons, Kan.
Nov. 21.....J. Harvey & Son, Maryville, Kan.
Jan. 19.....Jas. L. Cook, Marysville, Kan.
Jan. 19.....W. C. Whitney, Agra, Kan.
Jan. 19.....Ward Bros., Republic, Kan.
Jan. 19.....G. J. Logan, Onaga, Kan., at Manhattan, Kan.

Jan. 28.....Samuelson Bros., Manhattan, Kan.
Feb. 1.....W. T. Fitch, Beloit, Kan.
Feb. 2.....Pearl H. Pagett, Beloit, Kan.
Feb. 3.....Jno. W. Jones & Son, Concordia, Kan.
Feb. 3.....G. W. Colwell, Sumnerfield, Kan.
Feb. 4.....J. E. Joines, Clyde, Kan.
Feb. 5.....Grant Chaplin, Green, Kan., at Manhattan, Kan.
Feb. 6.....G. M. Hammond and K. S. A. C., Manhattan, Kan.

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Avoid disputes with your grain and stock buyer. Get every dollar that's coming to you by being sure your weights are right. Insure that accuracy by getting an

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New Castle, Ind. Kansas City, Mo., Station "A"

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— AT GUTHRIE RANCHE —

Strong City, Kans., Friday, September 18, '08

The entire herd will be sold to settle estate of the late W. W. Guthrie. Not a single animal will be reserved. Herd Boars, Brood Sows, Sows with pig by side, Bred Sows, Open Gilts, Spring Pigs, etc. The grandest lot of Black Robinhoods ever offered in the history of Berkshires. Herd in perfect health and every animal fitted for future usefulness.

The Greatest Opportunity Ever Presented.

The following great Berkshires will be sold: Berryton Duke 72946 by Black Robinhood, Revelation 86906 by Berryton Duke, Sir Ivanhoe 103092 by Ivanhoe, General Premier 93894 by Lord Premier, Sir Masterpiece 102594 by Masterpiece, Ivanhoe Jr. 97900 by Ivanhoe, Richard Masterpiece 96670 by R. Masterpiece and Alexis Boy 78234 by Baron Premier. The offering includes daughters of Black Robinhood, Berryton Duke, Masterpiece, Forest King, Revelation, Ivanhoe, Lord Bacon, O. H. F. Sensation, Imperial Duke, Headlight, Sylvan Dale, Riverside Lee, King Premier 2d, Searchlight 2d, Lord Premier, Premier Longfellow, Lord Premier's Rival; will include gilts by Berryton Duke, Premier Longfellow, Baron Duke, Ivanhoe Jr., Revelation; spring litters by Berryton Duke, Revelation, General Premier, Berryton Duke Jr., Sir Ivanhoe, Richard Masterpiece, Sir Masterpiece, and Ivanhoe Jr. For catalogues and other information, address

T. F. GUTHRIE, Manager, Guthrie Rancho
Sale held by order of W. F. GUTHRIE, Executor.

Feb. 9.....B. F. Porter, Mayfield, Kan., at Caldwell, Kan.
Feb. 9.....Thompson Bros., Garrison, Kan.
Feb. 9.....H. Metzinger, Caldwell, Kan.
Feb. 10.....T. E. Goethe, Leonardville, Kan.
Feb. 11.....Ola Nordstrom, Clay Center, Kan.
Feb. 11.....J. F. Stodder and Marshall Bros., Burden, Kan.

Feb. 12.....L. E. Kretzmler, Clay Center, Kan., at Emporia, Kan.
Feb. 13.....Frank Georgia, Mankato, Kan.
Feb. 15.....J. A. Rathbun, Downs, Kan.
Feb. 16.....D. O. Bancroft, Downs, Kan.
Feb. 17.....R. G. Sollenburger, Woodston, Kan.
Feb. 18.....John W. Jones & Son, Concordia, Kan., at Emporia, Kan.

Feb. 18.....E. M. Myers, Burr Oak, Kan.
Feb. 19.....H. B. Miner and A. T. Cross, Guide Rock, Neb., at Superior, Neb.
Feb. 23.....A. B. Skadden & Son, Frankfort, Kan.
Feb. 23.....Wm. Sutter, Liberty, Neb.
Feb. 24.....James M. Williams, Home, Kan.
Feb. 28.....James M. Williams, Home, Kan.

The Lincoln Top Sale Circuit.
Oct. 5.....A. Wilson, Bethany, Neb.
Oct. 6.....Ford Skeen, Auburn, Neb.
Oct. 7.....W. M. Putnam, Tecumseh, Neb.
Oct. 8.....R. F. Miner, Tecumseh, Neb.
Oct. 9.....Elmer Lamb, Tecumseh, Neb.
Oct. 10.....F. C. Crocker, Filley, Neb.

Central Kansas Sale Circuit.
Oct. 6.....N. J. Fuller, Garnett, Kan.
Oct. 7.....J. F. Staadt, Ottawa, Kan.
Oct. 8.....H. R. Gingham, Wellsville, Kan.
Oct. 9.....C. R. Green, Spring Hill, Kan.

Southeastern Kansas Sale Circuit.
Nov. 11.....Samuel Drybread, Elk City, Kan.
Nov. 12.....Frank Drybread, Elk City, Kan.
Nov. 13.....J. J. Baker, Elk City, at Thayer, Kan.
Nov. 14.....O. W. Simmerly, Parsons, Kan.

Chester Whites.
Oct. 13.....J. E. Simpson, Sheridan, Mo.

Berkshires.
Sept. 18.....T. F. Guthrie, Strong City, Kan.
Oct. 17.....A. C. Dugan, at Blackwell, Okla.
Oct. 27.....C. A. Robinson, Kirksville, Mo.

O. I. C.
Sept. 24.....Combination sale, St. Joseph, Mo., I. M. Fisher, Mgr., box K, Hastings, Neb.
Sept. 30.....Combination sale, Cameron, Mo., I. M. Fisher, Mgr., box K, Hastings, Neb.
Oct. 1.....Combination sale, Independence, Mo., I. M. Fisher, Mgr., box K, Hastings, Neb.
Oct. 6.....Wm. Bartlett, Pierce, Neb.
Oct. 8.....Combination sale, Sedalia, Mo., I. M. Fisher, Mgr., box K, Hastings, Neb.
Oct. 10.....D. C. Stayton, Blue Springs, Mo.
Oct. 15.....Combination sale, Independence, Mo., I. M. Fisher, Mgr., box K, Hastings, Neb.
Oct. 22.....Combination sale, Hastings, Neb., I. M. Fisher, Mgr., box K, Hastings, Neb.
Oct. 27.....Combination sale, Holdrege, Neb., I. M. Fisher, Mgr., box K, Hastings, Neb.
Oct. 30.....Combination Sale, Concordia, Kan., I. M. Fisher, Mgr., box K, Hastings, Neb.

Nov. 4.....Combination sale, Sioux City, Iowa, I. M. Fisher, Mgr., box K, Hastings, Neb.
Nov. 5.....D. C. Stayton, Blue Springs, Mo.
Nov. 18.....A. T. Gath, Larned, Kan.
Dec. 10.....S. W. Artz, Larned, Kan.
Jan. 15.....Forward & Son, Bayneville, Kan.
Feb. 19.....Isaac Briggs, Minneapolis, Kan.

Horses.
Feb. 16.....J. C. Robison, Mgr., Wichita, Kan.
Nov. 23, 24, 25.....Draft breeds registered horses at Springfield, Ill., W. C. McGavock & Co., Mgrs.

Combination Sales.
Oct. 1 and 2.....Woodson County Breeders' Association, G. A. Loude, secretary, at Yates Center, Kan.
Feb. 16, 17, 18.....J. C. Robison, Mgr., Towanda, Kan., at Wichita, Kan.

American Royal Sales.
Oct. 13.....Herefords..Secretary C. R. Thomas, manager, 221 West 12th St., Kansas City, Mo.
Oct. 14.....Galloways..Secretary R. W. Brown, manager, 17 Exchange Ave., Chicago.
Oct. 15.....Aberdeen-Angus..Secretary Charles Gray, manager, 17 Exchange Ave., Chicago.
Oct. 15.....Berkshires..Charles E. Sutton, manager, Lawrence, Kan.
Oct. 16.....Shorthorns..Secretary R. O. Cowan, manager, 17 Exchange Ave., Chicago.

International Sales.
Dec. 1.....Aberdeen-Angus..Secretary Charles Gray, manager, 17 Exchange Ave., Chicago.
Dec. 2.....Galloways..Secretary R. W. Brown, manager, 17 Exchange Ave., Chicago.
Dec. 3.....Herefords..Secretary C. R. Thomas, manager, 221 West 12th St., Kansas City, Mo.
Dec. 4.....Shorthorns..Secretary B. O. Cowan, manager, 17 Exchange Ave., Chicago.

The Outside of a Home.

While most of us take great pride in "fixing up" the interior of our homes, making it cosy and attractive, many are less particular about the outside, when, as a matter of fact, the surroundings of a home have more to do with its general beauty than the inside. And, if you will stop to think about it, it's the fence that has most to do with the appearance of your yard. Tumbledown wooden fences will ruin the appearance of any yard, and because they are wood, most wood fences are tumbledown. The Cyclone Fence Co., of Waukegan, Ill., manufactures many beautiful designs in ornamental steel fences, any one of which would not only add 100 per cent to the attractiveness of any home, but would save the owner its cost over and over again by the cutting out of repair bills. These fences, together with their perfect steel drive gate, form a combination that will outlast a score of wooden fences and gates, and yet they are actually no higher in price. The Cyclone Fence Company's advertisement in this issue offers readers of THE KANSAS FARMER its finely illustrated catalogue free—every home owner who takes pride in the appearance of the home should send for it.

The "Junata News," published by the American Steel and Wire Co., Chicago, contains valuable illustrated papers about horse shoes and shoeing. It will be well for every owner of horses to send for a copy of this interesting publication. It is free for the asking.

How To Grow Better Fruit.

(Continued from page 963.)

that it will be found a most profitable and satisfactory change to so readjust the customary plans or to rearrange the cropping system in such a manner as to permit the giving of proper attention to the orchard at proper times. Frequently it is merely the appreciation of what is the most important thing that is needed. For instance, if the early spraying for codling moth, which must be done within the space of a week or so, comes at the same time that the corn needs cultivating, or some other farm operation that, according to time-honored custom, receives attention then, is it not a logical sequence of events to assume that the other thing can wait with less loss than can that early spraying for codling moth, which must be done at a particular stage of the apple, if it is to be effective?

"I admit that my attitude is one of prejudice in favor of the orchard at the expense of other farm work, if this need be, but if the orchard, acre for acre, is the most profitable part of the average farm, in spite of neglect, isn't it worth while to foster somewhat carefully this profitable interest, especially when such fostering is practically sure to greatly increase in a relative degree the value of those interests? Suppose an apple tree is capable of producing eight barrels of apples, and that under ordinary conditions of neglect 50 per cent of these can be graded as No. 1. But if the expenditure of a comparatively few cents per tree and a little energy in pruning, spraying, fertilizing, etc., will make 90 per cent of that fruit No. 1, and not only that, but a much better grade of No. 1 than in the first instance, isn't it a good business proposition to invest those few cents and that little energy in the way suggested?"

Perhaps no better statement of existing conditions, and the changes which are needed, can be made than this one by Professor Gould. Growers must disabuse their minds of the idea that apples will grow without care. Even the most favored sections will not produce good apples in this way. Here is what Mr. Gould says on this subject:

"I know one section of country which is actually suffering on account of the bouquets that have been heaped upon it and the backs that have been patted. The people have been misguided by the compliments that have been paid them into thinking that nature has done everything for them, and that they had nothing to do but to plant the trees. But that method can not be made to work anywhere."—Farm and Stock.

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A remarkable offer made by one of the leading ear specialists in this country. Dr. Branaman offers to all applying at once two full months' medicine free to prove his ability to cure permanently deafness, head noises, and catarrh in every stage. Address, Dr. C. M. Branaman, 1360 Walnut St., Kansas City, Mo.

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Special Want Column

"Wanted," "For Sale," "For Exchange," and small want or special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials or a number counted as one word. No order accepted for less than \$1.00.

CATTLE.

FOR SALE—Ninety-five head of high-grade Hereford yearling heifers. Geo. M. Lambert, Route 3, Cheney, Kans.

HOLSTEINS—Registered and A. R. O. at half value. DeKol, Colantha, Johanna, Canary, Mercedes, Hengerveld, Hartog, Sarcastic, Pauline, Clothilde, Aaglie, Wytyle and Josephine breeding predominates. G. G. Burton, Topeka, Kans.

POLLED DURHAMS—A few young bulls; also 30 head of cows and heifers bred, for sale. Prices reasonable. C. M. Albright, Overbrook, Kans.

FOR SALE—Registered Holstein-Friesian bull, 2 years old. Registered O. I. C. brood sow and pedigree male. Good individual. Prices reasonable. R. J. Fitzgerald, R. 5, Columbus, Kans.

ALYSDALE SHORTHORNS—Offer 2 bulls, 10 females. The bulls are "Lothair," by Prince Consort, dropped August 21, 1907, and "Sylvester," by Prince Consort, dropped September 2, 1907. Both out of Lord Mayor dams. Cows are nicely bred and in calf to Prince Consort or Master of Alysdale. Will be priced right to any buyer. C. W. Merriam, Columbian building, Topeka, Kans.

SWINE.

FOR SALE—A few very choice Poland-China fall and spring boars; in good breeding condition. F. A. Tripp, Meriden, Kans.

HORSES AND MULES.

FOR SALE—Three Jacks, age 3 to 10 years, registered; Mammoth, 15 to 16 hands high; black; 12 jennets; 2 colts; 2 Jacks, age 1 1/2 to 2 years; 1 Percheron stallion, black, 1700 pounds. Write for particulars, Henry D. C. Poos, Blackburn, Okla.

SEEDS AND PLANTS.

PURE-BRED ZIMMERMAN WHEAT—The greatest yielding soft wheat. Seed purchased from Manhattan Experiment Station, 1907. Re-cleaned and sacked, \$1.50 per bushel, f. o. b. J. P. Klammer, Basehor, Kans.

SEED WHEAT—Bearded Fife, a hard wheat. This wheat was obtained from the Kansas Experiment Station. I have used every precaution to keep it pure, and have graded the seed with a good fanning mill. This variety is one of the best yielders. Price, sacked, on cars f. o. b., \$1.50 per bushel. C. H. White, Route 5, Burlington, Kans.

KARKOFF WHEAT—Seed from Hays Experiment Station, 1906. \$1.25 per bushel, sacks included. W. W. Cook, Russell, Kans.

COLLEGE BRED SEED WHEAT—Kharkof and Malakoff. Ten Eyck Company, Concordia, Kans.

KHARKOV SEED WHEAT—Have some fine seed for sale. All seed cleaned and graded. For particulars write, Fred G. Carls, Clay Center, Kans.

SEED WHEAT—We have the seed that made Kansas rich and famous. The Hard Turkey. The hardest, and best milling wheat grown. Will grow on any good land. Prices reasonable. Write for free sample. W. J. Madden, Hays, Kansas.

FARMERS, SOW THE BEST—We have pure Kharkof seed wheat, re-cleaned and graded, price \$1.50 per bushel in lots of 4 bushels or more, f. o. b. at Belaire, Smith Co., Kans. Seed from Manhattan College, 1907. Obas & W. S. Honn.

TENNESSEE WINTER BARLEY—Averaged 47 bushels per acre for 3 years. \$1 per bushel. 85c per bushel in lots of 10 bushels or more. Best of pasture. Walter Jenkinson, Pond Creek, Okla.

THE BEST ALFALFA SEED GROWS "OUT THERE IN KANSAS". We sell it. Ask us for samples and prices. The Barteldes Seed Co., Lawrence, Kans.

WANTED TO BUY—New crop Meadow Fescue or English Blue Grass seed. If you have any to offer, please correspond with us. The Barteldes Seed Co., Lawrence, Kans.

SHEEP.

FOR SALE—400 breeding ewes with 400 lambs, in bunches to suit on farm of W. R. Lott, Highland Park. Address, Route 1, Topeka, Kans. Ind. Phone 2874.

MISCELLANEOUS.

AUCTION SCHOOLS—Learn auctioneering. Illustrated catalogue free. Carpenter's Auction School, Trenton, Mo.

TEN DOLLARS for names of two friends. Capital Watch Co., Box 147, Topeka, Kans.

FOR SALE—Pure alfalfa honey in 60 pound cans. In case lot of two cans, \$8.50, single cans, \$4.50. Prompt shipments. W. P. Morley, Las Animas Col.

HIGH CLASS COLLIES—Some rare bargains in these dogs for a short time. A. P. Chacey, North Topeka, Kans. Ind. Phone 8243.

THE ANDERSON-ARMSTRONG COMPANY, Topeka, Kansas, are selling apple boxes at from 12 1/2 cents to 15 cents. See them before purchasing.

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WANTED—I local agents to take orders for a complete line of high grade, western grown nursery stock. Permanent position. Experience unnecessary. Outfit free. Cash weekly. National Nurseries, Lawrence, Kans.

NEW HONEY—Fancy, \$10 per case of two 60-pound cans. A. S. Parson, Rocky Ford, Colo.

JOB PRINTING—Write us for prices on anything in the job printing line. Address B. A. Wagner, Mgr., 625 Jackson Street, Topeka, Kans.

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FOR SALE—Farms and village homes, located everywhere. Send for free bulletin. W. H. Burke, Clifton Springs, N. Y.

220 ACRE FARM—100 acres of pasture; never failing water; 70 acres in cultivation, balance meadow. Three room house and barn. Best stock farm in this section of the country. Will be sold at a bargain if taken soon. J. W. Swartz, Americus, Kans.

ANDERSON COUNTY BARGAINS—Clover and Alfalfa is king. 180 fine smooth land, fenced, wild meadow, price \$25.00 per acre. 180 smooth, improved close in, \$45.00 per acre. 80 improved, some timber, 3 miles out, price \$25.00 per acre. 50 acres one mile county seat, natural gas, finely improved. owner wants hardware. Write for description. W. K. Shaw, Garnett, Kans.

BARGAIN—Improved 160, smooth, fenced, 25 acres alfalfa land. 60 acres cultivated, orchard, 200 forest trees, well 80 ft., windmill, 7 miles town, mail, phone, good locality, 1/2 mile to school. For particulars, terms and price, write owner, J. H. Brown, Norcatur, Kans.

IT IS WORTH MORE MONEY—307 acres well improved, 120 cultivation, 60 bottom, 18 alfalfa, timber, well and windmill, spring, close to school and church, phone and route. Price \$8000, worth \$9000. Garrison & Studebaker, McPherson, Kans.

160 acres upland, lays well, fine fruit, well watered, fair improvements, 6 miles north of Topeka, 1 mile from Elmont. A. P. Chacey, North Topeka, Kans. Ind. phone 8243.

I HAVE SOME GOOD BARGAINS in Gove County lands. Write and get my prices. We have lots of good water and a fine climate. M. V. Springer, Quinter, Kans.

LAND FOR SALE—Three upland farms in Jefferson County. One highly improved. Also wheat land in Gove County. J. F. True, Perry, Kans.

FINE alfalfa, wheat and stock farms for sale. Circular free. Warren Davis, Logan, Kans.

FARMS for sale in Catholic community; \$25 per acre and up. Ed George St. Paul, Kans.

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QUARTER SECTION of fine land in Sherman County, close to Goodland, to trade for part horses, cattle or mules. T. J. Kennedy, Osawkee, Kans.

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Young stock for sale at all times.
GARNETT, KANSAS.

DUROC-JERSEYS

DEEP CREEK DUROCS {Spring pigs, either sex, noted families of the breed, from the most up-to-date Durocs at prices to move them. C. O. Anderson, Manhattan, Kans.

CROW'S DUROCS—140 large early spring pigs, Ohio Chief, Buddy K., Oom Paul, Mo. Wonder and Kant Be Best blood lines. Extra quality, reasonable prices. Electric cars run within 2 blocks of yards. W. R. Crow, 200 E. Osborne St., Hutchinson, Kans.

STROH'S HERD OF DUROC-JERSEYS
70 spring pigs for sale, mostly sired by Hogate's Model, the sweepstakes boar at Nebraska State Fair, 1906 and out of popular breeding dams. Correspondence solicited.
J. STROH, R. 4, DeWitt, Neb.

HIGHLAND DUROCS

100 Choice spring pigs of the best strains and a few fancy gilts bred for fall farrow, at reasonable prices. Farm adjoins town.
L. A. KEELER, Toronto, Kans.

DUROC SPRING PIGS FOR SALE

of both sexes from the Orion, Kant Be Best and Ohio Chief families. Correspondence solicited. Write for prices.
O. A. Peacock, - - Burchard, Neb.

200 SPRING PIGS

HEADQUARTERS FOR DUROCS: any age, either sex, females sold open or bred. Large herd in the S. W. Send in your order, we can fill it.
COPPIN & WORLEY, Potwin, Kans.

MADURA DUROCS.

BROOD SOWS—Some fine brood sows bred to Major Roosevelt and Miller's Nebraska Wonder, he by Nebraska Wonder.

FRED J. MILLER, Wakefield, Kans.

GAYER'S

DUROCS: 36 choice fall gilts and 14 tippy fall boars by Golden Chieftain, a good son of Ohio Chief. These will be sold cheap to make room for my spring crop. Also 1 good yearling boar, \$25.
J. H. GAYER,
R. R. 1, Cottonwood Falls, Kans.

PEERLESS STOCK FARM

DUROC-JERSEY HOGS FOR SALE.
R. G. SOLLENBERGER, Woodston, Kans.

GEO. KERR'S DUROCS.

Pigs for sale sired by such boars as Lincoln Chief, Leader, Lincoln Top. Out of dams from the Improver 2d, Proud Advance, Top Notcher, Wonder and Ohio Chief families.
R. R. 3, Box 90, Sabetha, Kans.

Humphrey's

DUROCS. Choice spring pigs, both kinds of early farrow; Ohio Chief and Improver 2d blood lines. Also Scotch Collies of the best breeding and quality. Prices reasonable. Call or write
J. S. Humphrey, R. 1, Pratt, Kans.

Walnut Creek Durocs

150 spring pigs by the herd boars, attractive Chief 61097 and Big Crimson 69413, and other good sires. Choice boars for sale now. T. E. Goethe, Leonardville, Riley Co., Kans.

Uneeda Herd Duroc-Jerseys.

Choice spring pigs sired by Kerr's Model, one of the best sons of W. L. A. Choice goods. Dams from the Improver, Ohio Chief and Tip Top Notcher families. Correspondence solicited.
TYSON BROS., Circleville, Kans.

Fairview Herds—Durocs, Red Polls:

20 high grade Red Polled cows and heifers, 40 Duroc-Jersey swine, mostly males, will be sold at my fall sale on October 7, 1908. Nothing for sale now. Stock doing fine.

J. E. DAVIS, Fairview, Brown Co., Kans.

WOOD'S DUROCS

Good hogs are good property now. Don't you want some? A few boars and gilts of 1907 crop. Nice lot of spring pigs just right age and weight to ship.

W. A. WOOD, - - Elmdale, Kans.

Howe's

DUROCS. 100 early spring pigs, the best I ever raised. Improver, Top Notcher, Sensation and Gold Finch blood lines. Call or write.

J. U. HOWE,
Wichita, Kans.

JACKSON'S DUROCS.

Special Bargains in fancy, well grown spring pigs, both sexes, and choice fall males richly bred; 2 of these are double cross Ohio Chief. Also 1 good herd boar, a grandson of Desoto 15155. 2 extra good registered Shorthorn bulls for sale.

O. L. JACKSON, New Albany, Kans.

SPECIAL!

I have a car of long yearling bulls, a car of bull calves, a car of yearling heifers and a car of heifer calves for sale. These cattle are all in good growing condition and are mostly reds. They were sired mostly by Baron Ury 2d 124970, Bold Knight 179064 and Headlight 2d 243806.

C. W. Taylor, R. 2, Enterprise, Kans.

Marshall's Durocs

60 fall and winter, and 80 spring pigs, the best I ever raised, Ohio Chief, Goldfinch, Hunt's Model and Parker Mc blood lines. Farmers' prices. Call or write

R. B. MARSHALL, Willard, Kans.

Stray List

For Week Ending August 27.
Kearny County, F. L. Pierce, Clerk.
HORSE—Taken up, July 25, 1908, by D. L. Eves, in Hibbard tp., one bay horse, horseshoe and letter O branded on left shoulder.

ALL
KINDS
AND
SIZES;
TIMBERS,
BOARDS,
PLANKING,
STUDDING,
JOISTS,
DIMENSION,
SHEATHING,
LATH, SHINGLES,
SIDING,
BARN BOARDS,
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40 ACRES OF STOCK!

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Our Chicago Yards! Our lumber yards are right here in Chicago. No matter if you have other figures don't fail to get our prices. You will be positively surprised to see how much you can save on your lumber and building supply bill if you send it to us. Our prices are simply unbeatable. They can not be numbered except at tremendous loss. We have the inside track on lumber prices. We can save you dollars where others save you pennies.

We Invite Personal Inspection

Every foot of our lumber is clean—fresh from the mill—carefully graded—delivered exactly in accordance to grade. Remember our stock moves fast. Our supply is never old or dirty like in local yards. You can see our stock personally. Call and inspect it thoroughly before you buy. See with your own eyes that our claims are absolutely true. You will find that our lumber grades exactly in accordance with our representation.

You Can Order Safely By Mail From Us! Hundreds of farmers, contractors, builders, carpenters and others visit our yards every month. Thousands more order direct by mail, first sending in their bills for estimates. In either way perfect satisfaction is absolutely assured and guaranteed.

High Grade, New Millwork

We are in better shape to quote you low prices on millwork than any other concern in the world. We can furnish you millwork of any kind or character. We can furnish everything—either the regular or special sizes. Send us a memorandum of your requirements. Let us make you an estimate. Be sure and get our prices on shingles, flooring, sheathing and siding. We also have a complete line of fire places and mantels—everything in building hardware. You will find our prices right. Send for our estimate today. Many concerns offer lumber for delivery from mills and have only offices from which they make quotations. Ninety per cent sell lumber on a brokerage basis and never have any of their goods in stock. Not so with us, we occupy a space of 40 acres covered with lumber and building material.

We can save you 40 to 60 per cent on all kinds of Roofing Material

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On application we will make you an estimate, freight prepaid, showing what material will cost you laid down at destination on orders for carload lots. If you do not need a carload get your neighbors to club in with you. You can get a mixed car including Furniture, Roofing, Hardware, Mill Supplies, Machinery or anything else you need for furnishing or improving your buildings or farm. Thus you can make a big saving. Why pay exorbitant prices to local lumber yards? Buy from us at first hand. Save 40c on every dollar bill. Save freight charges. We want small orders as well as big ones. We cater to the small customer. Let us figure with you. Send in your bill for our estimate—we have everything you need.

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We will fill your lumber orders without one cent of cash deposit. We offer extremely liberal terms. All that prospective buyers need to do is to prove their responsibility. WE SHIP LUMBER AND BUILDING MATERIAL WITHOUT CASH IN ADVANCE to any honest Farmer, Contractor, Carpenter, Builder or reader of this paper. In accordance with our simple method you can qualify and take advantage of this generous offer. DELIVER IT AT YOUR STATION WITH FREE PRIVILEGE OF EXAMINATION. You need not accept it unless thoroughly satisfactory in every respect.

LOOKS GOOD TO LOCAL DEALER

Unloaded Car of lumber, found it O. K. Part of it is in the church. Quite a good many have looked at it and they all think it was a fine car of lumber. Our dealer stood by the car and watched every piece taken out, but could not say anything against it. Saved \$125.00. GEO. N. HODGE, Mich., July 26, 1908.

MADE \$250.00 ON ONE ORDER

I have saved, on my bill of lumber from you, about \$250.00 which I think is quite worth while. Have recommended your lumber to all here. Many came to examine it and found it satisfactory. They fail to understand how you can sell as cheaply according to the prices of dealers here. I found the doors the best I have ever used.

MAT KIRK, N. Y., July 6, 1908.

THE EXACT P. O. ADDRESS OF THE WRITERS OF THESE LETTERS WILL BE FURNISHED ON APPLICATION TO PROSPECTIVE CUSTOMERS.

We have thousands of letters from lumber buyers all over the United States who are happier and richer for sending us their orders. These few letters are samples of bushels of testimonials that bear out our statements in this advertisement about our money-saving offers.

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The building, lumber and millwork supplies we offer you are new, fresh and clean. They are not wreckage. Do not listen to the statements of retail lumber dealers condemning our business—they have their axes to grind. Don't let them poison your mind. Be independent! Investigate our proposition personally. Our goods are delivered in exact accordance with representations in this advertisement. We are ready to forfeit \$10,000 in cash if you can prove that this advertisement is false, misleading or deceiving.

Railroad tracks run right into our buildings. We can have your order on its way within 48 hours if necessary. Every shipment goes by the shortest, quickest and most economical route. We must ship promptly. Every possible concession accurate is yours. Give us a trial! Send us your order when you get our literature and prices.

MAIL THIS COUPON!

"Three Big Offers" mentioned in this advertisement, mail us the coupon today.

PROMPT SHIPMENTS!

It will put you in touch with the wonderful situation in the lumber market. It will bring you our thousands of money-saving offers. Don't put this off if you are going to build or improve. No order is so small that we cannot save you from 40% to 60%. If you want our

3 BIG FREE OFFERS!

If your home is east of the Mississippi River and north of the Ohio River, or if you live in Iowa, Missouri or Minnesota, we will pay your railroad fare to Chicago, including lodging, during the time necessary to sell you the material you want, provided we sell you at least one carload of lumber and building material. If you live elsewhere write us for our railroad fare offer. This gives you an opportunity to look over our tremendous stock. You can select what you want and see it loaded. Bill of lading showing shipment will also be given you immediately.

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We will send you, free, a copy of our new 1908-09 edition of house and barn plans. It contains many photographic pictures of new up-to-date residences, farm homes, barns, cottages, etc.—all of the most modern design. It contains complete construction plans of each floor for houses costing from \$450.00 upward. Shows most popular style of farm homes now being constructed. Also contains up-to-date barn plans—side and cross section views—hip roofs, bank barns, sheep and dairy barns, horse stables, etc. Fill in and send coupon today.

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